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P.B. MINGLE & Co's
ALMANAC
AND
GARDEN MANUAL

1903

Geddes Print, 716 Chestnut St. Phila.

103 Market Street, Philadelphia.



TAKE NOTICE



Ladies and Gentlemen coming to the City, and finding themselves encumbered by Waterproofs, Overcoats, Satchels, &c., can leave such articles at our Store until their return home.

Also, Ladies shopping can have their bundles sent to the Store, taking them up as they go to the Ferries or Cars.

We shall be glad to accommodate our friends in this way.

Very respectfully,

P. B. MINGLE & CO.

1903

| | Sun. | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. |
|------|------|------|-------|------|-------|------|------|
| JAN. | .. | .. | .. | 1 | 2 | 3 | |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| FEB. | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| MAR. | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| APR. | .. | .. | .. | .. | 1 | 2 | 3 |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| MAY | .. | .. | .. | .. | 26 | 27 | 28 |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| JUNE | .. | .. | .. | .. | 31 | 1 | 2 |
| | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | 28 | 29 | 30 | .. | .. | .. | .. |

STREETS OF PHILADELPHIA

| No. | North. | South. |
|------|---------------|-------------------|
| 1 | Market, | Market, Jayne |
| 100 | Arch, Cherry, | 100 Chestnut, |
| 200 | Race, New, | 200 Walnut, |
| 300 | Vine, Wood, | 300 Spruce, Union |
| 400 | Callowhill, | 400 Pine, |
| 500 | Buttonwood, | 500 Lombard, |
| 500 | SpringGarden | 600 South, |
| 500 | GreenMtVern | 700 Bainbridge, |
| | Wallace, | 800 Catherine, |
| 700 | Fairmount, | 900 Christian, |
| 800 | Brown, | 1000 Carpenter, |
| 900 | Poplar, | 1100 Washington, |
| 1200 | Girard Ave., | 1200 Federal, |
| 1300 | Thompson, | 1300 Wharton, |
| 1400 | Master, | 1400 Reed, |
| 1500 | Jefferson, | 1500 Dickerson, |
| 1600 | Oxford, | 1600 Tasker, |
| 1700 | Columbia Ave | 1700 Morris, |
| 1800 | Montgomery, | 1800 Moore, |
| 1900 | Berks, | 1900 Mifflin, |
| 2000 | Norris, | 2000 McKean, |
| 2100 | Diamond, | 2100 Snyder, |
| 2200 | Susquehanna, | 2200 Jackson, |
| 2300 | Dauphin, | 2300 Wolf, |
| 2400 | York, | 2400 Ritner, |
| 2500 | Cumberland, | 2500 Porter, |
| 2600 | Huntingdon, | 2600 Shunk, |
| 2700 | Lehigh Ave., | 2700 Oregon Ave. |
| 2800 | Somerset, | 2800 Johnson, |
| 2900 | Cambria, | 2900 Bigler, |
| 3000 | Indiana, | 3000 Pollock. |

1903

| | Sun. | Mon. | Tues. | Wed. | Thur. | Fri. | Sat. |
|-------|------|------|-------|------|-------|------|------|
| JULY | .. | .. | .. | .. | .. | .. | |
| | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | 26 | 27 | 28 | 29 | 30 | 31 | .. |
| AUG. | .. | .. | .. | .. | .. | .. | 1 |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| SEPT. | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | 27 | 28 | 29 | 30 | .. | .. | .. |
| OCT. | .. | .. | .. | .. | .. | .. | |
| | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| NOV. | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | 29 | 30 | .. | .. | .. | .. | .. |
| DEC. | .. | .. | .. | .. | .. | .. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| | 27 | 28 | 29 | 30 | 31 | .. | .. |

GREETINGS FOR 1903.



A REPUTATION to be lasting must not come accidentally or through trickery, but be based on talent and merit. Such a reputation is built up little by little—built to endure, and to give one wealth that cannot be wholly represented by the money he earns. Yet it must be a large part of his working capital.

The only way to secure it is by firm and persistent reliance on merit.

P. B. MINGLE & Co. has striven for sixty-five years to acceptably cater to their patrons, and with what success their large list of customers attests. Through the consistent application of business principles they stand second to none in their ability to furnish FARM AND GARDEN SEEDS of better quality for price, or greater promptness in filling orders.

Prime germinative qualities can only be expected of good seed. Cheap seed never pays.

Trust P. B. MINCLE & Co. to so adjust the relations of seeds to cost and charges that you shall in consequence receive a full and fair return for the expenditure made.

Yours truly,

P. B. MINGLE & CO.



EVERY MERCHANT

who gets or wants to get the farmer's trade—the best trade in the world—must be quick to see and appreciate just the goods needed.

Most farmers keep cows, and most cows have, at some time one or more of the diseases that is easily cured by



KOW-KURE

THE GREAT COW MEDICINE

If you have Kow-Kure in stock you have one more hold on the farmer's trade, and a big one. If you have not it. GET IT. This merchant has it, he knows.

Morgantown, Pa., Nov. 21, 1900.

P. B. Mingle & Co., Dear Sirs:—

Please find check for 2 doz. small Kow-Kure. Ship as soon as you can. I am entirely out. It beats anything to bring good reports, that we ever had.

Yours respectfully,

S. Deichley.

If you will put Kow-Kure in stock the Association will do local advertising for you.

We have handled thousands of packages of this medicine and advise you to try it.

P. B. MINGLE & CO., Phila., Pa.

EVERY - FARMER -

Who Keeps One or More Cows Should Know That

KOW-KURE cures abortion (slinking).
KOW-KURE cures barrenness (failure to breed).

KOW-KURE prevents tuberculosis.

KOW-KURE removes retained afterbirth

KOW-KURE cures scouring in cows and calves.

KOW-KURE cures bunches and swelling in bag.

KOW-KURE cures milk fever.

KOW-KURE enriches the blood.

KOW-KURE improves the appetite.

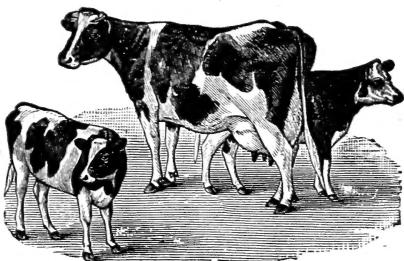
KOW-KURE increases the milk.

KOW-KURE is a medicine, not a food.

KOW-KURE is for cows only.

KOW-KURE has stood the test for ten years.

KOW-KURE is a complete success.



To know these facts and act upon them is to insure dairy against profit-destroying diseases, and guarantee a uniform standard of excellent health.

Kow-Kure makes healthy cows, and healthy cows pay.

Sayles, Pa., April 3, 1900.

Dairy Association,

Lyndonville, Vt.

Dear Sirs:—I have used Kow-Kure for the removal of afterbirth in cows and for scours in calves and it works nicely. I also know that it is a grand thing for a cow that is off its feed.

Yours truly,

D. B. BOYCE

Kow-Kure is put up in two sizes. Enough medicine in one package to treat one cow from five to eight weeks, according to the disease. Directions for use with every package. The price is 50 cents and \$1.00.

Made Only by the Dairy Association, Lyndenville, Vt.

1903

1st Month,



1903

31 Days.

MOON'S PHASES.

© First Quarter . . . 6d. 4h. 56m. A.

© Last Quarter, . . . 20d. 6h. 49m. M.

© Full Moon . . . 13d. 9h. 17m. M.

© New Moon . . . 28d. 11h. 38m. M.

Jan. 4th—Day's Length: 9 hours, 25 minutes.

**CALENDAR FOR
NEW YORK CITY, PHILADELPHIA,
Pennsylvania, Connecticut, New Jersey, Ohio,
Indiana and Illinois.**

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | Sun. Rises. | Sun. Sets. | Slow M. | H. M. | morn. | even. |
|-------------|--------------|-------------|----------------|---------------|---------|-------|-------|-------|
| 1 | 1 | Thurs. | 7 22 | 4 44 | 3 | 7 40 | 3 8 | 3 28 |
| 2 | 2 | Fri. | 7 23 | 4 45 | 4 | 8 37 | 3 47 | 4 7 |
| 3 | 3 | Sat. | 7 23 | 4 46 | 4 | 9 34 | 4 27 | 4 47 |
| 4 | 4 | Sun. | 7 23 | 4 46 | 5 | 10 33 | 5 7 | 5 28 |
| 5 | 5 | Mon. | 7 23 | 4 47 | 5 | 11 34 | 5 49 | 6 10 |
| 6 | 6 | Tues. | 7 23 | 4 48 | 6 | morn. | 6 32 | 6 56 |
| 7 | 7 | Wed. | 7 23 | 4 49 | 6 | 0 36 | 7 22 | 7 51 |
| 8 | 8 | Thurs. | 7 23 | 4 50 | 7 | 1 40 | 8 23 | 8 58 |
| 9 | 9 | Fri. | 7 22 | 4 51 | 7 | 2 47 | 9 32 | 10 6 |
| 10 | 10 | Sat. | 7 22 | 4 52 | 7 | 3 55 | 10 42 | 11 17 |
| 11 | 11 | Sun. | 7 22 | 4 53 | 8 | 5 0 | 11 50 | |
| 12 | 12 | Mon. | 7 22 | 4 54 | 8 | 6 2 | 0 22 | 0 50 |
| 13 | 13 | Tues. | 7 22 | 4 55 | 9 | rises | 1 17 | 1 44 |
| 14 | 14 | Wed. | 7 21 | 4 57 | 9 | 6 41 | 2 10 | 2 36 |
| 15 | 15 | Thurs. | 7 21 | 4 58 | 9 | 7 53 | 3 2 | 3 26 |
| 16 | 16 | Fri. | 7 21 | 4 59 | 10 | 9 3 | 3 50 | 4 14 |
| 17 | 17 | Sat. | 7 20 | 5 0 | 10 | 10 10 | 4 37 | 5 0 |
| 18 | 18 | Sun. | 7 20 | 5 1 | 10 | 11 13 | 5 23 | 5 45 |
| 19 | 19 | Mon. | 7 19 | 5 2 | 11 | morn. | 6 7 | 6 30 |
| 20 | 20 | Tues. | 7 19 | 5 3 | 11 | 0 15 | 6 53 | 7 18 |
| 21 | 21 | Wed. | 7 18 | 5 4 | 11 | 1 14 | 7 44 | 8 12 |
| 22 | 22 | Thurs. | 7 17 | 5 5 | 12 | 2 11 | 8 41 | 9 10 |
| 23 | 23 | Fri. | 7 17 | 5 6 | 12 | 3 6 | 9 40 | 10 8 |
| 24 | 24 | Sat. | 7 16 | 5 8 | 12 | 3 57 | 10 36 | 11 3 |
| 25 | 25 | Sun. | 7 16 | 5 9 | 12 | 4 46 | 11 30 | 11 55 |
| 26 | 26 | Mon. | 7 15 | 5 10 | 13 | 5 30 | . | 0 19 |
| 27 | 27 | Tues. | 7 14 | 5 11 | 13 | 6 11 | 0 41 | 1 1 |
| 28 | 28 | Wed. | 7 13 | 5 12 | 13 | sets | 1 20 | 1 39 |
| 29 | 29 | Thurs. | 7 13 | 5 14 | 13 | 6 29 | 1 59 | 2 20 |
| 30 | 30 | Fri. | 7 12 | 5 15 | 13 | 7 28 | 2 40 | 2 59 |
| 31 | 31 | Sat. | 7 11 | 5 16 | 14 | 8 27 | 3 19 | 3 39 |

Conjectures of the Weather.

The 1st-3rd, stormy and snow; 4th-6th, cloudy and snow; 7th, 8th, pleasant; 9th-11th, variable; 12th-14th, clear and cold; 15th, 16th, clear and pleasant; 17th, 18th, changeable; 19t-21st, cold; 22d-24th, changeable; 25th, 26th, windy; 27th, 28th, snow; 29th-31st, clear and cold.

SIBERIAN MILLET.

Siberian, sometimes called Russian Millet, has been grown for a number of years past in this country and has largely taken the place of German and Common Millet, as well as Hungarian.

We have made extensive inquiries regarding this variety and the general reports are that the plant grows larger than Common Millet, with beard and chaff similar to Hungarian; the plant making a ranker growth, produces more leaves than either Common Millet, German Millet, or Hungarian, leaves starting close to the ground and continuing nearly to top of stem; leaves wide and tender, making it preferable to other Millets for Hay. Yield of Hay reported 1-3 to $\frac{1}{2}$ more per acre, beside Hay softer when cured, greener in color and preferred by stock to other Hay or Millets.

It matures about the same time as Common Millet and Hungarian and earlier than German Millet; it is claimed that it will stand drought better than other varieties of Millet. It has been a success in sections where season is too short to mature a Corn Crop.

Some parties report it a good crop to clean ground from foul growth and also good as Summer fallowing.

Yield of Seed reported about 30 to 40 bushels to the acre, but instances have been known to reach 50 to 60 bushels.

Amount sown per acre varies according to soil, ranging from $\frac{1}{2}$ to 1 bushel.

We shall be pleased to send samples and quotations on application and trust to be favored with your orders.

PERMANENT PASTURE GRASS SEED.

Having given our attention to grasses for this purpose for many years, and after practical results and experience, we have succeeded in creating a mixture which we can highly recommend.

If there is any land you wish to set in permanent pasture, we can supply you with a mixture of any description required or a special mixture admirably suited for this purpose at a very reasonable cost. We are headquarters for all kinds of grass seeds and can save you money on your purchases.

KAFFIR CORN.

Kaffir Corn belongs to the non-sacharine group of sorghums, and in its habit of growth is very similar to the common sorghum or cane. The plant is short jointed and leafy. It is the greatest dry weather resisting crop that can be grown in this section. When dry weather comes it does not die, but simply stops growing until rain does come, and then continues its growth. It will average a larger crop of grain than corn, and the fodder is much superior to corn fodder, as it remains green until after the seed is ripe. The grain is equal to corn for feeding, and all classes of stock eat it readily. Grinding is not necessary. A mixture of four-fifths Kaffir Corn and one-fifth Soy Beans is a perfect feed for hogs. At the Kansas Experiment Station a lot of hogs, fed on Kaffir Corn alone, made an average gain of 44 1-10th pounds per head in fifty days. When fed four-fifths Kaffir Corn and one-fifth Soy Beans they gained 86 6-10th pounds per head in fifty days.

For grain the seed should be planted in rows and cultivated like corn. This will require about five pounds per acre. For fodder one-half to two bushels should be sown, and the crop for hay when the seed is in the dough.

TIMOTHY.

In the West, where there is less need for frequent rotation of crops than in the East, it is deemed desirable to prolong the life of a timothy field as much as possible.

Western farmers sow red clover and redtop grass in their timothy fields, in many instances. The clover must be renewed every three years as it dies out. The redtop must be used sparingly, or it will crowd out the timothy.

Old timothy fields in the West become "hidebound" after a time, that is, the bulbous roots of the timothy become so numerous and the ground gets so hard that satisfactory growth is impossible.

The remedy for a "hidebound" timothy field is to give a good top-dressing in the spring, and follow with a heavy harrow, tearing up the surface of the sod and separating the bunches of timothy. This renews the life of the field.

1903

2nd Month,



1903

28 Days.

MOON'S PHASES.

C First Quarter . . . 5d. 5h. 12m. M.

C Last Quarter . . . 19d. 1h. 22m. M.

F Full Moon . . . 11d. 7h. 58m. A.

N New Moon . . . 27d. 5h. 19m. A.

Feb. 1st—Day's Length: 10 hours, 7 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | High Water Philadelphia |
|-------------|--------------|-------------|---|---------------|---------|--------|-------------|----------------------------|
| | | | Sun. Rises. | Sun. Sets. | Slow M. | H. M. | morn. even. | |
| 32 | 1 | Sun. | 7 10 | 5 17 | 14 | 9 26 | 3 59 | 4 19 |
| 33 | 2 | Mon. | 7 9 | 5 18 | 14 | 10 28 | 4 40 | 5 1 |
| 34 | 3 | Tues. | 7 8 | 5 20 | 14 | 11 31 | 5 23 | 5 45 |
| 35 | 4 | Wed. | 7 7 | 5 21 | 14 | morn. | 6 8 | 6 32 |
| 36 | 5 | Thurs. | 7 6 | 5 22 | 14 | 0 34 | 6 58 | 7 27 |
| 37 | 6 | Fri. | 7 5 | 5 23 | 14 | 1 39 | 8 0 | 8 35 |
| 38 | 7 | Sat. | 7 4 | 5 24 | 14 | 2 43 | 9 11 | 9 48 |
| 39 | 8 | Sun. | 7 3 | 5 26 | 14 | 3 45 | 10 25 | 11 0 |
| 40 | 9 | Mon. | 7 2 | 5 27 | 14 | 4 34 | 11 34 | . |
| 41 | 10 | Tues. | 7 1 | 5 28 | 14 | 5 32 | 0 6 | 0 35 |
| 42 | 11 | Wed. | 6 59 | 5 29 | 14 | rises. | 1 1 | 1 25 |
| 43 | 12 | Tu rs. | 6 58 | 5 31 | 14 | 6 37 | 1 48 | 2 12 |
| 44 | 13 | Fri. | 6 57 | 5 32 | 14 | 7 46 | 2 37 | 3 0 |
| 45 | 14 | Sat. | 6 55 | 5 34 | 14 | 8 54 | 3 23 | 3 45 |
| 46 | 15 | Sun. | 6 54 | 5 35 | 14 | 9 59 | 4 7 | 4 29 |
| 47 | 16 | Mon. | 6 53 | 5 36 | 14 | 11 1 | 4 52 | 5 14 |
| 48 | 17 | Tues. | 6 52 | 5 37 | 14 | morn. | 5 37 | 5 59 |
| 49 | 18 | Wed. | 6 50 | 5 38 | 14 | 0 0 | 6 22 | 6 45 |
| 50 | 19 | Thurs. | 6 49 | 5 39 | 14 | 0 57 | 7 9 | 7 35 |
| 51 | 20 | Fri. | 6 48 | 5 40 | 14 | 1 50 | 8 3 | 8 33 |
| 52 | 21 | Sat. | 6 47 | 5 41 | 14 | 2 40 | 9 4 | 9 33 |
| 53 | 22 | Sun. | 6 45 | 5 42 | 14 | 3 26 | 10 1 | 10 29 |
| 54 | 23 | Mon. | 6 44 | 5 44 | 14 | 4 9 | 10 57 | 11 23 |
| 55 | 24 | Tues. | 6 42 | 5 45 | 13 | 4 47 | 11 47 | . |
| 56 | 25 | Wed. | 6 41 | 5 46 | 13 | 5 23 | 0 10 | 0 33 |
| 57 | 26 | Thurs. | 6 40 | 5 47 | 13 | sets. | 0 53 | 1 12 |
| 58 | 27 | Fri. | 6 39 | 5 48 | 13 | 6 19 | 1 31 | 1 50 |
| 59 | 28 | Sat. | 6 37 | 5 50 | 13 | 7 20 | 2 10 | 2 31 |

Conjectures of the Weather.

The 1st—3rd, blustery and cloudy; 4th—6th, cool and clear; 7th—9th, cloudy; 10th—12th, clear and windy; 13th, 14th, changeable; 15th—17th, pleasant; 18th—20th, rain and cool; 21st, 22d, changeable; 23rd, 24th, frost; 25th, 26th, cloudy and snow; 27th, 28th, blustery.

A HAY-ZY SUBJECT.

An Ohio editor says that hay fever is caused by kissing grass widows. A Missouri editor says it is caused by a grass widow kissing a fellow by moonlight. An Iowa editor says it is caused by a fellow kissing his girl while he is feeding hay to a cow, and an eastern Kansas exchange is of the opinion that it is caused by missing the girl and kissing the cow.—*The Retailers' Journal*.

LUCERNE OR ALFALFA.

Alfalfa, a species of clover, appears to be rapidly coming into favor in the East. It has long been an agricultural favorite and standard crop in the West, especially in semi-arid regions. It has a wonderfully deep root, and is able to find moisture where other plants would perish of thirst. It will yield several cuttings in a season. The hay is of very high feeding value, in some respects surpassing red clover.

This is undoubtedly the most valuable variety for permeable sub soils, as it sends down its tap roots in mellow soils to great depths, having been found in sandy soils thirty feet below the surface, far below the reach of drought. The flowers are a pale blue, somewhat difficult to establish the first year, requiring a fine, mellow soil, but will then produce a profitable crop for ten or twelve years. The fall is the best time for sowing in this latitude, though it has done well when sown in the spring; the ground should be thoroughly prepared, and made smooth and fine. Sow twenty-five pounds per acre, harrow in lightly, and follow with a light roller to properly imbed the seed. It should be cut as soon as it begins to blossom, or even a little earlier; if left too late is apt to become coarse and hard, and is less relished by cattle. In no event should it be allowed to go to seed the first season, as it tends to weaken the plant; it improves rather than exhausts the soil, and as a fertilizer it stands at the head of the list. It may be exterminated at any time by simple plowing thoroughly, and removing the crowns to where they may be burned or rotted; it yields an enormous amount of green fodder, and can be cut four or five times during the season.

One of the most successful tests of alfalfa thus far made in the East was announced recently by the agricultural experiment station of New Jersey, where 26.6 tons of green fodder (equivalent to 6.65 tons of cured hay) were harvested in one year. The crop was gathered in five cuttings from a single acre. The successful treatment of alfalfa involves the free use of lime, but never in connection with stable manure or fertilizer. The permanent care of an alfalfa field (it is a perennial crop, lasting many years) involves the use of liberal amounts of stable manure and fertilizer. The New Jersey station used 10 tons of manure annually; also, 150 pounds of acid phosphate and 100 pounds of muriate of potash.

Green alfalfa and clover are so near alike in composition as to make but little difference between them. It will do nicely if sowed in rows and cultivated with wheel hoes. Once it gets a firm hold it will thicken and fill all vacant places. The main point is to save it from the weeds until it can take care of itself.

FALL-SOWN RED CLOVER.

In the southern half of the State one sees many fields of new red clover. It can be sown later than the crimson, and is surer to make a good sod. In the West we prefer a wheat crop the first harvest after the clover is sown, but here a clover hay crop and a more rapid growth of the clover plants for sake of the soil are preferable. Some of this fall-sown clover is now very small, and would not endure the severity of an Ohio winter, while other fields, seeded earlier, are covered with a mat of green. Other farmers are using rye for a winter crop, to be plowed under in the spring. They sow more rye because experience has taught that the rye sod in the spring increases the productive power of the land.

EXAMINE YOUR STOCK OF GARDEN SEEDS.

This is an excellent time to examine the garden seeds, especially peas, which are liable to attack by weevil. Put the seeds in a box, pour a spoonful or two of bisulphide of carbon, close the lid and in fifteen minutes the pests will be destroyed and the seeds uninjured.

1903

3rd Month,



1903

31 Days.

MOON'S PHASES.

© First Quarter . . . 6d. 2h. 14m. A.
☽ Full Moon . . . 13d. 7h 13m M.

☽ Last Quarter . . . 20d. 9h. 8m. A.
㉓ New Moon . . . 28d. 8h. 26m. A.

Mar. 1st—Day's Length: 11 hours, 16 minutes.

CALENDAR FOR
NEW YORK CITY, PHILADELPHIA,
Pennsylvania, Connecticut, New Jersey, Ohio,
Indiana and Illinois.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | Sun. | Sun. | Slow M. | H. M. | Morn. | High Water Philadelphia |
|-------------|--------------|-------------|--------|-------|---------|-------|-------|-------------------------|
| | | | Rises. | Sets. | | | M. | even. |
| 60 | 1 | Sun. | 6 35 | 5 51 | 13 | 8 22 | 2 51 | 3 12 |
| 61 | 2 | Mon. | 6 34 | 5 52 | 12 | 9 24 | 3 33 | 3 54 |
| 62 | 3 | Tues. | 6 32 | 5 53 | 12 | 10 27 | 4 16 | 4 39 |
| 63 | 4 | Wed. | 6 30 | 5 54 | 12 | 11 31 | 5 2 | 5 26 |
| 64 | 5 | Thurs. | 6 29 | 5 55 | 12 | morn. | 5 51 | 6 17 |
| 65 | 6 | Fri. | 6 28 | 5 56 | 12 | 0 35 | 6 44 | 7 13 |
| 66 | 7 | Sat. | 6 26 | 5 57 | 11 | 1 35 | 7 46 | 8 21 |
| 67 | 8 | Sun. | 6 25 | 5 58 | 11 | 2 32 | 8 58 | 9 35 |
| 68 | 9 | Mon. | 6 23 | 5 59 | 11 | 3 24 | 10 10 | 10 44 |
| 69 | 10 | Tues. | 6 22 | 6 1 | 11 | 4 12 | 11 16 | 11 46 |
| 70 | 11 | Wed. | 6 20 | 6 2 | 10 | 4 54 | .. | 0 14 |
| 71 | 12 | Thurs. | 6 18 | 6 3 | 10 | 5 32 | 0 40 | 1 3 |
| 72 | 13 | Fri. | 6 17 | 6 4 | 10 | rises | 1 24 | 1 47 |
| 73 | 14 | Sat. | 6 15 | 6 5 | 10 | 7 38 | 2 10 | 2 32 |
| 74 | 15 | Sun. | 6 13 | 6 6 | 9 | 8 43 | 2 54 | 3 16 |
| 75 | 16 | Mon. | 6 12 | 6 7 | 9 | 9 44 | 3 38 | 4 0 |
| 76 | 17 | Tues. | 6 10 | 6 8 | 9 | 10 43 | 4 22 | 4 45 |
| 77 | 18 | Wed. | 6 8 | 6 9 | 8 | 11 40 | 5 7 | 5 28 |
| 78 | 19 | Thurs. | 6 7 | 6 10 | 8 | morn. | 5 50 | 6 13 |
| 79 | 20 | Fri. | 6 5 | 6 11 | 8 | 0 31 | 6 37 | 7 1 |
| 80 | 21 | Sat. | 6 4 | 6 12 | 8 | 1 19 | 7 26 | 7 53 |
| 81 | 22 | Sun. | 6 2 | 6 13 | 7 | 2 4 | 8 22 | 8 52 |
| 82 | 23 | Mon. | 6 0 | 6 14 | 7 | 2 43 | 9 22 | 9 50 |
| 83 | 24 | Tues. | 5 58 | 6 15 | 7 | 3 21 | 10 17 | 10 43 |
| 84 | 25 | Wed. | 5 57 | 6 16 | 6 | 3 56 | 11 9 | 11 34 |
| 85 | 26 | Thurs. | 5 55 | 6 17 | 6 | 4 28 | 11 58 | |
| 86 | 27 | Fri. | 5 53 | 6 18 | 6 | 5 0 | 0 20 | 0 42 |
| 87 | 28 | Sat. | 5 52 | 6 19 | 5 | sets | 1 2 | 1 21 |
| 88 | 29 | Sun. | 5 50 | 6 20 | 5 | 7 13 | 1 42 | 2 3 |
| 89 | 30 | Mon. | 5 49 | 6 21 | 5 | 8 19 | 2 25 | 2 47 |
| 90 | 31 | Tues. | 5 47 | 6 22 | 4 | 9 24 | 3 10 | 3 33 |

Conjectures of the Weather.

The 1st-3rd, cloudy and rain; 4th-6th, pleasant; 7th, 8th, variable; 9th-11th, clear and windy; 12th-14th, stormy and rain; 15th, 16th, clear and pleasant; 17th, 18th, changeable; 19t-21st, pleasant; 22d-24th, changeable; 25th, 26th, windy; 27th, 28th, rain; 29th-31st, clear and cold.

USEFUL TABLES.

TABLE SHOWING THE WEIGHT OF VARIOUS ARTICLES.

| | | | |
|--------------------------|---------------------|-----------------------|--------------------|
| Barley | per bushel, 48 lbs. | Oats..... | per bushel, 32 lbs |
| Beans | per bushel, 60 lbs. | Onions..... | per bushel, 57 lbs |
| Buckwheat | per bushel, 48 lbs. | Osage Orange | per bushel, 33 lbs |
| Broom Corn | per bushel, 46 lbs. | Orchard Grass..... | per bushel, 12 lbs |
| Blue Grass..... | per bushel, 14 lbs. | Peas | per bushel, 60 lbs |
| Clover Seed..... | per bushel, 60 lbs. | Potatoes, Irish | per bushel, 60 lbs |
| Corn, shelled..... | per bushel, 56 lbs. | Red Top Seed..... | per bushel, 10 lbs |
| Corn, on the ear | per bushel, 70 lbs. | Rye | per bushel, 56 lbs |
| Flax Seed | per bushel, 56 lbs | Sweet Potatoes | per bushel, 55 lbs |
| Hemp Seed | per bushel, 40 lbs. | Timothy Seed | per bushel, 45 lbs |
| Hungarian Grass Seed.... | per bushel, 48 lbs. | Top Onions | per bushel, 28 lbs |
| Millet | per bushel, 50 lbs. | Turnips..... | per bushel, 55 lbs |
| German Millet..... | per bushel, 50 lbs. | Wheat..... | per bushel, 60 lbs |

QUANTITY OF SEED USUALLY SOWN UPON AN ACRE.

| | | | |
|-------------------------------|-----------------|---------------------------------|-----------------|
| Barley, broadcast..... | 2 to 3 bushels | Onion, for sets in drills..... | 30 pounds |
| Beans, Dwarf, in Drills | 1½ bushels | Onion sets, in drills,..... | 6 to 12 bushels |
| Beans, Pole, in hills..... | 10 to 12 quarts | Parsnips, in drills..... | 4 to 6 pounds |
| Beets, in drills | 5 to 6 pounds | Peas, in drills..... | 1½ bushels |
| Broom Corn, in hills..... | 8 to 10 quarts | Peas, broadcast..... | 3 bushels |
| Buckwheat..... | 1 bushel | Potatoes, cut tubers..... | 10 bushels |
| Cabbage in beds to transplant | ¼ pound | Pumpkin, in hills..... | 4 to 6 pounds |
| Carrots in drills | 3 to 4 pounds | Radish, in drills..... | 8 to 10 pounds |
| Chinese Sugar Cane..... | 12 quarts | Rye, broadcast..... | 1½ to 2 bushels |
| Corn, in hills,..... | 8 to 10 quarts | Sage, in drills | 8 to 10 pounds |
| Corn, for soiling | 3 bushels | Salsify, in drills | 8 to 10 pounds |
| Cucumber, in hills | 2 pounds | Spinach, in drills..... | 10 to 12 pounds |
| Flax, broadcast | 1½ bushels | Squash, bush varieties in hills | 4 to 6 pounds |
| Hemp..... | 1½ bushels | Squash, Run'g " in hills | 3 to 4 pounds |
| Mustard, broadcast..... | ½ bushel | Tomato, to transplant..... | 1 pound, |
| Melon, Musk, in hills..... | 2 to 3 pounds | Turnip, in drills | ½ to 2 pounds |
| Melon, Water, in hills..... | 4 to 5 pounds | Turnip, broadcast | 3 to 4 pounds |
| Oats, broadcast | 2 to 3 bushels | Vetches, broadcast..... | 2 to 3 bushels |
| Onion, in drills | 5 to 6 pounds | Wheat, broadcast | 1½ to 2 bushels |

GRASS SEEDS TO THE ACRE.

| | | | |
|-----------------------|-----------------|-----------------------|-----------------|
| White Clover | 10 pounds | Blue Grass..... | 1½ to 3 bushels |
| Red Clover | 10 to 15 pounds | Rye Grass..... | 1½ to 2 bushels |
| Lucerne Clover | 10 to 15 pounds | Orchard Grass..... | 1½ to 2 bushels |
| Alsike Clover..... | 4 to 6 pounds | Red Top Grass..... | 1½ to 2 bushels |
| Timothy..... | 12 pounds | Mixed Lawn Grass..... | 2 to 3 bushels |
| Hungarian Grass | 1 bushel | Millet..... | 1 bushel |

NUMBER OF PLANTS TO THE ACRE.

| DISTANCE APART. | NO. OF PLANTS. | DISTANCE APART. | NO. OF PLANTS |
|-----------------------|----------------|-----------------------|---------------|
| 1 foot by 1 foot..... | 43,560 | 6 feet by 6 feet..... | 1,210 |
| 1½ " 1½ " | 19,360 | 8 " 8 " | 680 |
| 2 " 1 " | 21,780 | 10 " 10 " | 435 |
| 2 " 2 " | 10,890 | 12 " 12 " | 302 |
| 2½ " 2½ " | 6,969 | 15 " 15 " | 193 |
| 3 " 2 " | 7,260 | 18 " 18 " | 134 |
| 3 " 3 " | 4,840 | 20 " 20 " | 103 |
| 4 " 4 " | 2,722 | 25 " 25 " | 70 |
| 5 " 5 " | 1,742 | 30 " 30 " | 84 |

NUMBER OF PLANTS PRODUCED FROM AN OUNCE OF SEED.

| PLANTS. | PLANTS. |
|------------------|---------------|
| Asparagus..... | about 500,000 |
| Broccoli..... | " 2,000 |
| Cabbage | " 2,000 |
| Cauliflower..... | " 2,000 |
| Celery..... | " 3,000 |
| Egg Plant..... | " 1,000 |
| Endive..... | " 3,000 |
| Kale..... | about 2,000 |
| Leek | " 10,000 |
| Lettuce..... | " 3,000 |
| Pepper..... | " 2,000 |
| Tomato..... | " 3,000 |
| Sage..... | " 1,000 |
| Thyme..... | " 5,000 |

1903

4th Month.



1903

30 Days.

MOON'S PHASES.

- (C) First Quarter . . . 4d. 8h. 51m. A. (C) Last Quarter . . . 19d. 4h. 30m. A.
 (G) Full Moon . . . 11d. 7h. 18m. A. (G) New Moon . . . 27d. 8h. 31m. M.

April 5th—Day's Length: 12 hours, 47 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|--------------|---------|--------|-------|----------------------------|
| | | | Sun. Rises. | Sun. Sets | Slow M. | H. M. | Morn. | High Water Philadelphia |
| 91 | 1 | Wed. | 5 46 | 6 23 | 4 | 10 28 | 3 58 | 4 23 |
| 92 | 2 | Thurs. | 5 44 | 6 24 | 4 | 11 29 | 4 48 | 5 14 |
| 93 | 3 | Fri. | 5 43 | 6 25 | 4 | morn. | 5 40 | 6 6 |
| 94 | 4 | Sat. | 5 41 | 6 26 | 3 | 0 27 | 6 34 | 7 3 |
| 95 | 5 | Sun. | 5 40 | 6 27 | 3 | 1 20 | 7 35 | 8 8 |
| 96 | 6 | Mon. | 5 38 | 6 28 | 3 | 2 7 | 8 43 | 9 18 |
| 97 | 7 | Tues. | 5 36 | 6 29 | 2 | 2 50 | 9 51 | 10 22 |
| 98 | 8 | Wed. | 5 35 | 6 30 | 2 | 3 30 | 10 52 | 11 22 |
| 99 | 9 | Thurs. | 5 33 | 6 31 | 2 | 4 6 | 11 50 | . |
| 100 | 10 | Fri. | 5 32 | 6 32 | 2 | 4 40 | 0 16 | 0 39 |
| 101 | 11 | Sat. | 5 30 | 6 33 | 1 | rises. | 1 1 | 1 22 |
| 102 | 12 | Sun. | 5 28 | 6 34 | 1 | 7 29 | 1 42 | 2 4 |
| 103 | 13 | Mon. | 5 27 | 6 35 | 1 | 8 30 | 2 26 | 2 48 |
| 104 | 14 | Tues. | 5 25 | 6 36 | 0 | 9 28 | 3 10 | 3 31 |
| 105 | 15 | Wed. | 5 24 | 6 37 | 0 | 10 22 | 3 53 | 4 15 |
| 106 | 16 | Thurs. | 5 22 | 6 38 | F. | 10 12 | 4 37 | 5 0 |
| 107 | 17 | Fri. | 5 21 | 6 39 | 0 | 11 58 | 5 22 | 5 43 |
| 108 | 18 | Sat. | 5 19 | 6 40 | 0 | morn. | 6 5 | 6 28 |
| 109 | 19 | Sun. | 5 18 | 6 41 | 1 | 0 40 | 6 51 | 7 16 |
| 110 | 20 | Mon. | 5 16 | 6 42 | 1 | 1 17 | 7 41 | 8 8 |
| 111 | 21 | Tues. | 5 15 | 6 43 | 1 | 1 52 | 8 36 | 9 5 |
| 112 | 22 | Wed. | 5 14 | 6 44 | 1 | 2 25 | 9 33 | 10 0 |
| 113 | 23 | Thurs. | 5 12 | 6 45 | 2 | 2 58 | 10 26 | 10 53 |
| 114 | 24 | Fri. | 5 11 | 6 46 | 2 | 3 30 | 11 19 | 11 44 |
| 115 | 25 | Sat. | 5 9 | 6 47 | 2 | 4 2 | . | 0 9 |
| 116 | 26 | Sun. | 5 8 | 6 48 | 2 | 4 35 | 0 32 | 0 55 |
| 117 | 27 | Mon. | 5 7 | 6 49 | 2 | sets. | 1 16 | 1 38 |
| 118 | 28 | Tues. | 5 5 | 6 50 | 2 | 8 15 | 2 2 | 2 28 |
| 119 | 29 | Wed. | 5 4 | 6 51 | 3 | 9 21 | 2 53 | 3 19 |
| 120 | 30 | Thurs. | 5 2 | 6 52 | 3 | 10 21 | 3 44 | 4 10 |

Conjectures of the Weather.

The 1st—3rd, cloudy and showers; 4th—6th, warm and clear; 7th—9th, cloudy; 10th—12th, clear and warm; 13th, 14th, changeable; 15th—17th, pleasant; 18th—20th, rain and thunder; 21st, 22d, changeable; 23rd, 24th, fair; 25th, 26th, cloudy; 27th, 28th, blustery; 29th, 30th, worm.

GERMAN MILLET.

Curing Millet.—Millet is somewhat difficult to cure, and if it can be matured early enough to get the warm sun of August or early September it will be a decided advantage, but 60 days is usually long enough to grow it for hay. It should be cut for hay as soon as it comes into blossom, the point being to prevent formation of seed. The reputation that millet has for being injurious to stock has largely arisen from the hay being allowed to over-ripen before cutting, a large portion of the seed being matured. It is the seeds rather than the hay that injures stock, since they are very hard and not easily digested. The writer has seen the manifolds of a cow packed full of seed, causing indigestion, from feeding over-ripe hay.

Growing Millet Seed.—This is not commonly practiced by farmers in this latitude. The seed crop is a very profitable one, and where corn can not be grown is often substituted for it. Yields are surprisingly large, 50 to 70 bushels per acre have been obtained. Broomcorn and Japanese millet yield even more. The seed is of about the same composition as oats, but is not so well adapted to all kinds of stock. The seed must be finely ground to feed well to any stock. This is a point that must not be overlooked, as trouble is very likely to follow feeding it unground.

The common, Golden millet and Red Siberian are the best of the medium sized sorts for seed, though broomcorn is rated higher as hog feed. Sow any of these in drills rather than broadcast. For a seed crop, sow somewhat thinner than for hay, $\frac{1}{2}$ or $\frac{3}{4}$ bushel of common or Golden being sufficient, and one bushel of broomcorn. When matured it should be cut with a binder, dried thoroughly before threshed, threshed with the ordinary grain separator, and stored as other grain. The straw in most cases is very poor, indeed, and should not be considered as of much value except for bedding.

JAPANESE BUCKWHEAT.

It is the most desirable and most profitable variety of this grain; the seeds are nearly twice the size of any other, and manufacture a superior flour. It is usually sown 1 bushel per acre, yields a better crop, while the straw is stiffer and stands up better and is more largely planted than the old-fashioned, being about two weeks earlier.

Buckwheat is rapidly becoming a popular feed for birds, being much cheaper than most grains and of a substantial character as food.

DWARF ESSEX RAPE.

This plant is extensively grown for forage, especially for sheep and for green manure, for which purpose there is perhaps no better plant adapted where a quick, rank growth is desired. Rape seed may be broadcasted, and it may be seeded in the corn field when the corn is "laid by." Rape is revolutionizing the sheep industry in this country, and it is also excellent for hogs and all kinds of poultry. It will be an advantage to test it on a small plot this year. Farmers who raise much stock and desire to get young cattle, sheep or lambs into favorable condition to be sold advantageously in the fall, can do it most cheaply by growing this rape. Prepare the ground as for turnips and sow in June or July, with a turnip drill, in rows $2\frac{1}{2}$ feet apart, at the rate of 3 pounds of seed per acre, or broadcast at the rate of 6 pounds to the acre. An acre of rape will be ready to pasture in six weeks from time of sowing and will carry 12 to 15 sheep six weeks to two months. Its fattening properties are probably twice as great as clover. When sheep are feeding on rape they should at all times have access to salt. Our stock is the true Essex Dwarf, and not the worthless annual.

1903

5th Month,



1903

31 Days.

MOON'S PHASES.

- First Quarter . . 4d. 2h. 26m. M.
⊗ Full Moon . . . 11d. 8h. 18m. M.

- Last Quarter, . . 19d. 10h. 18m. M.
⊗ New Moon . . . 26d. 5h. 50m. A

May 3rd—Day's Length: 13 hours, 56 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|---------------|---------|-------|----------------------------|-------|
| | | | Sun. Rises. | Sun. Sets. | Fast M. | Moon. | High Water Philadelphia | |
| 121 | 1 | Fri. | 5 0 | 6 53 | 3 | 11 17 | 4 37 | 5 5 |
| 122 | 2 | Sat. | 5 1 | 6 54 | 3 | morn. | 5 31 | 5 57 |
| 123 | 3 | Sun. | 4 59 | 6 55 | 3 | 0 6 | 6 24 | 6 52 |
| 124 | 4 | Mon. | 4 57 | 6 56 | 3 | 0 50 | 7 21 | 7 50 |
| 125 | 5 | Tues. | 4 56 | 6 57 | 3 | 1 29 | 8 22 | 8 55 |
| 126 | 6 | Wed. | 4 55 | 6 58 | 3 | 2 7 | 9 27 | 9 57 |
| 127 | 7 | Thurs. | 4 54 | 6 59 | 4 | 2 41 | 10 26 | 10 54 |
| 128 | 8 | Fri. | 4 53 | 7 0 | 4 | 3 14 | 11 21 | 11 47 |
| 129 | 9 | Sat. | 4 52 | 7 1 | 4 | 3 48 | . | 0 11 |
| 130 | 10 | Sun. | 4 51 | 7 2 | 4 | 4 25 | 0 36 | 0 57 |
| 131 | 11 | Mon. | 4 50 | 7 3 | 4 | rises | 1 17 | 1 38 |
| 132 | 12 | Tues. | 4 49 | 7 4 | 4 | 8 13 | 2 0 | 2 21 |
| 133 | 13 | Wed. | 4 48 | 7 5 | 4 | 9 5 | 2 43 | 3 5 |
| 134 | 14 | Thurs. | 4 47 | 7 5 | 4 | 9 52 | 3 27 | 3 48 |
| 135 | 15 | Fri. | 4 46 | 7 6 | 4 | 10 36 | 4 9 | 4 31 |
| 136 | 16 | Sat. | 4 45 | 7 7 | 4 | 11 15 | 4 53 | 4 14 |
| 137 | 17 | Sun. | 4 44 | 7 8 | 4 | 11 51 | 5 35 | 5 56 |
| 138 | 18 | Mon. | 4 43 | 7 9 | 4 | morn. | 6 17 | 6 38 |
| 139 | 19 | Tues. | 4 42 | 7 10 | 4 | 0 25 | 7 0 | 7 24 |
| 140 | 20 | Wed. | 4 41 | 7 11 | 4 | 0 57 | 7 50 | 8 17 |
| 141 | 21 | Thurs. | 4 40 | 7 12 | 4 | 1 28 | 8 45 | 9 13 |
| 142 | 22 | Fri. | 4 39 | 7 13 | 4 | 1 59 | 9 42 | 10 10 |
| 143 | 23 | Sat. | 4 39 | 7 14 | 4 | 2 33 | 10 29 | 11 8 |
| 144 | 24 | Sun. | 4 38 | 7 14 | 3 | 3 8 | 11 27 | . |
| 145 | 25 | Mon. | 4 38 | 7 15 | 3 | 3 37 | 0 4 | 0 31 |
| 146 | 26 | Tues. | 4 37 | 7 16 | 3 | sets | 0 56 | 1 20 |
| 147 | 27 | Wed. | 4 36 | 7 17 | 3 | 8 | 1 46 | 2 12 |
| 148 | 28 | Thurs. | 4 36 | 7 18 | 3 | 8 | 2 39 | 3 6 |
| 149 | 29 | Fri. | 4 35 | 7 18 | 3 | 10 2 | 3 32 | 3 59 |
| 150 | 30 | Sat. | 4 35 | 7 19 | 3 | 10 50 | 4 26 | 4 53 |
| 151 | 31 | Sun. | 4 34 | 7 20 | 3 | 11 32 | 5 19 | 5 44 |

Conjectures of the Weather.

The 1st-3rd, pleasant; 4th-6th, variable; 7th, 8th, clear and warm; 9th-11th, cloudy and rain; 12th-14th, worm and fair; 15th, 16th, clear and worm; 17th, 18th, cloudy; 19th-21st, pleasant; 22d-24th, changeable; 25th, 26th, rain; 27th, 28th, balmy; 29th-31st, clear and pleasant.

Comparative Industrial Growth of the United States in the last Decade.

| | 1882 | 1892 | 1902 |
|--|----------------|----------------|----------------|
| Population | 52,495,000 | 65,086,000 | 79,003,000 |
| Wealth \$ | 42,642,000,000 | 65,037,091,000 | 94,300,000,000 |
| Gold in Treasury \$ | 148,506,390 | 225,577,706 | 559,302,051 |
| Value farms and farm property . . . \$ | 12,180,501,538 | 16,082,267,689 | 20,514,001,838 |
| Value farm products \$ | 2,212,540,927 | 2,460,107,454 | 3,764,177,706 |
| Value of all farm animals \$ | 1,576,884,707 | 2,308,767,573 | 2,981,722,945 |
| Wheat bushels | 504,185,470 | 515,949,000 | 626,947,007 |
| Corn bushels | 1,617,025,100 | 1,628,464,000 | 2,545,366,379 |
| Wool lbs. | 272,000,000 | 294,000,000 | 316,341,032 |
| Cotton bales | 5,456,048 | 9,035,379 | 10,680,680 |
| Coal production tons. | 92,219,454 | 160,115,242 | 280,000,000 |
| Steel production tons. | 1,736,692 | 4,927,581 | 13,473,595 |
| Value of merchandise . . . imports \$ | 724,639,574 | 827,402,462 | 903,320,948 |
| Value of merchandise . . . exports \$ | 750,542,257 | 1,030,278,148 | 1,381,719,401 |
| Value of agricultural exports . . . \$ | 552,219,819 | 799,328,232 | 851,465,622 |

Industrial Growth Compared—Great Britain, Germany, and United States.

| 1902 | GREAT BRITAIN | GERMANY | UNITED STATES |
|-----------------------------------|---------------|---------------|---------------|
| Population | 41,952,510 | 57,566,000 | 79,003,000 |
| Money in circulation \$ | 786,773,732 | 1,249,714,000 | 2,249,390,551 |
| Circulation per capita | \$18.75 | \$21.71 | \$28.43 |
| Cattle | 11,477,824 | 18,939,692 | 67,822,336 |
| Wheat bushels. | 53,927,729 | 91,817,000 | 626,947,007 |
| Corn bushels | | | 2,545,366,379 |
| Wool lbs. | | | 316,341,032 |
| Coal production tons | 219,046,945 | 150,216,849 | 280,000,000 |
| Steel production tons | 5,000,000 | 6,293,170 | 13,473,595 |
| Imports merchandise \$ | 2,540,265,299 | 1,351,017,234 | 903,320,948 |
| Exports merchandise \$ | 1,362,728,000 | 1,113,125,048 | 1,381,719,401 |

1903

6th Month,



1903

30 Days.

MOON'S PHASES.

☽ Full Moon . . . 9d. 10h. 8m. A.
☽ Last Quarter . . . 18d. 1h 44m M.

☽ New Moon . . . 25d. 1h. 11m. M.
☽ First Quarter . . . 2d. 8h. 24m. M.

June 7th—Day's Length: 14 hours, 53 minutes.

**CALENDAR FOR
NEW YORK CITY, PHILADELPHIA,
Pennsylvania, Connecticut, New Jersey, Ohio,
Indiana and Illinois.**

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | Sun. | Sun. | Moon. | High Water Philadelphia | |
|-------------|--------------|-------------|--------|-------|-------|-------------------------|-------------|
| | | | Rises. | Sets. | | H. M. | morn. even. |
| 152 | 1 | Mon. | 4 34 | 7 21 | 3 | morn | 6 0 6 34 |
| 153 | 2 | Tues. | 4 33 | 7 22 | 2 | 0 9 | 7 0 7 27 |
| 154 | 3 | Wed. | 4 33 | 7 22 | 2 | 0 44 | 7 56 8 26 |
| 155 | 4 | Thurs. | 4 32 | 7 23 | 2 | 1 18 | 8 57 9 27 |
| 156 | 5 | Fri. | 4 32 | 7 24 | 2 | 1 52 | 9 55 10 53 |
| 157 | 6 | Sat. | 4 32 | 7 25 | 2 | 2 26 | 10 51 11 19 |
| 158 | 7 | Sun. | 4 32 | 7 25 | 2 | 3 2 | 11 45 |
| 159 | 8 | Mon. | 4 31 | 7 26 | 1 | 3 40 | 0 10 0 33 |
| 160 | 9 | Tues. | 4 31 | 7 26 | 1 | rises | 0 55 1 15 |
| 161 | 10 | Wed. | 4 31 | 7 27 | 1 | 7 48 | 1 35 1 57 |
| 162 | 11 | Thurs. | 4 31 | 7 27 | 1 | 8 34 | 2 19 2 40 |
| 163 | 12 | Fri. | 4 31 | 7 28 | 1 | 9 16 | 3 1 3 22 |
| 164 | 13 | Sat. | 4 31 | 7 28 | 0 | 9 53 | 3 42 4 3 |
| 165 | 14 | Sun. | 4 31 | 7 29 | 0 | 10 26 | 4 23 4 44 |
| 166 | 15 | Mon. | 4 31 | 7 29 | S. | 10 59 | 5 4 5 23 |
| 167 | 16 | Tues. | 4 31 | 7 29 | 0 | 11 30 | 5 43 6 3 |
| 168 | 17 | Wed. | 4 31 | 7 30 | 0 | morn. | 6 24 6 46 |
| 169 | 18 | Thurs. | 4 31 | 7 30 | 1 | 0 0 | 7 9 7 34 |
| 170 | 19 | Fri. | 4 31 | 7 31 | 1 | 0 30 | 8 1 8 31 |
| 171 | 20 | Sat. | 4 31 | 7 31 | 1 | 1 8 | 9 2 9 33 |
| 172 | 21 | Sun. | 4 31 | 7 31 | 1 | 1 40 | 10 4 10 36 |
| 173 | 22 | Mon. | 4 32 | 7 31 | 2 | 2 21 | 11 8 11 39 |
| 174 | 23 | Tues. | 4 32 | 7 32 | 2 | 3 8 | 0 10 |
| 175 | 24 | Wed. | 4 32 | 7 32 | 2 | sets | 0 38 1 5 |
| 176 | 25 | Thurs. | 4 32 | 7 32 | 2 | 7 50 | 1 31 1 58 |
| 177 | 26 | Fri. | 4 32 | 7 32 | 2 | 8 42 | 2 25 2 53 |
| 178 | 27 | Sat. | 4 33 | 7 32 | 3 | 9 27 | 3 19 3 45 |
| 179 | 28 | Sun. | 4 33 | 7 32 | 3 | 10 9 | 4 11 4 36 |
| 180 | 29 | Mon. | 4 24 | 7 32 | 3 | 10 47 | 5 1 5 25 |
| 181 | 30 | Tues. | 4 34 | 7 32 | 3 | 11 21 | 5 49 6 12 |

Conjectures of the Weather.

The 1st-3rd, cloudy and thunder; 4th-6th, warm and clear; 7th-9th, cloudy; 10th-12th, changeable; 13th-14th, clear and warm; 15th-17th, pleasant; 18th-20th, rain and thunder; 21st-22d, changeable; 23d-24th, fair; 25th-26th, cloudy; 27th-28th, showers; 29th-30th, pleasant.

PORLAND CEMENT.

A mixture of one (1) part Portland cement to five (5) parts clean sand and ten (10) parts gravel or broken stone will make a rock showing greater tensile or crushing strength than a mass of one (1) part natural or hydraulic cement, and only one (1) to two (2) parts sand, or any proportions of common cement, and other materials whatsoever. Another fact but slightly understood is that a mixture one (1) cement, two (2) sand and five (5) gravel is slightly stronger in resistance of compression to the square inch than the same mixture without gravel, while the gravel and cement without sand would make a concrete not one-half as strong to the square inch.

TWO CROPS IN ONE YEAR.

There are several crops that can be made to do service, not only in covering the land, but in destroying weeds. Millet, which grows rapidly, crowds the weeds out, while Hungarian grass, which may be mowed two or three times and then plowed under, is the best cleaner of the soil of weeds that can be used. Buckwheat is a crop that will grow on the poorest sandy soil, and even if corn or oats are broadcasted and turned under when high enough they will be serviceable. While the cow pea may be regarded as the best crop for adding nitrogen to the soil in summer, there is nothing to prevent the growing of two crops on the same land for enriching the soil, as it may not be necessary for such crops to mature. They can be turned under at any stage of growth. It is maintained that the crops can add nothing to the soil other than the amount derived therefrom. This claim is true so far as the mineral elements are concerned, but there is a decided gain of nitrogen by the use of the leguminous plants. As the soil contains a large proportion of inert mineral matter, the plants gradually change it to an available condition and, though not adding mineral matter to the soil, they bring it within reach of succeeding crops. In winter the soil loses its fertility rapidly, especially if there is frequent freezing and thawing, with abundant rain, for which reason rye or crimson clover serve to prevent loss. It will, therefore, pay the farmers to grow crops on every square foot of ground, as they will be serviceable on the land if not profitable for market.

LIME.

Lime is a good thing for the soil—when it is needed and almost a waste when it is not needed.

When the land is "sour," or when sorrel appears upon it, lime should be used at the rate of 25 to 50 bushels per acre.

It is considered bad farming to use lime and manure or lime and fertilizers at the same time. The action of the lime is to set free the ammonia, a thing which is desired in the case of an old, tough sod, and a thing which is not desired in the case of freshly-applied manure or fertilizer.

CABBAGE WORMS.

A mixture of equal parts of air-slaked lime, salt and wood ashes. This sifted through a meal sieve and well mixed. It kills quicker if it rains soon after it is put on.

Worms in flower pots are sources of uneasiness if not always of injury. They can easily be removed by saturating the soil with lime water, the clear water from slaked lime.

WIRE GRASS AND WEALTH.

The largest manufacturing industry in the State of Minnesota is engaged in the conversion of the common wire grass of the Minnesota sloughs into the various manufactured products for which it seems so well fitted—binding twine, cordage, matting, basket work, bagging, etc. More than 10,000 persons are being supported and doing well as a result of the development of this industry. And we well recall the time when the wire grass slough was considered the most worthless of any of Minnesota's broad acres and the owner of it an object of pity.

1903

7th Month.



1903

31 Days.

MOON'S PHASES.

- © First Quarter . . . 1d. 4h. 2m. A. © Last Quarter . . . 17d. 2h. 24m. A.
 ☽ Full Moon . . . 9d. 0h. 43m. A. ☽ New Moon . . . 24d. 7h. 46m. M.

July 5th—Day's Length: 14 hours, 55 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|--------------|---------|--------|----------------------------|-------|
| | | | Sun Rises. | Sun Sets. | Slow M. | Moon. | High Water Philadelphia | |
| 182 | 1 | Wed. | 4 35 | 7 32 | 3 | 11 55 | 6 35 | 0 0 |
| 183 | 2 | Thurs. | 4 35 | 7 32 | 4 | morn. | 7 27 | 1 54 |
| 184 | 3 | Fri. | 4 36 | 7 32 | 4 | 0 29 | 8 23 | 2 54 |
| 185 | 4 | Sat. | 4 36 | 7 32 | 4 | 1 5 | 9 24 | 3 53 |
| 186 | 5 | Sun. | 4 37 | 7 32 | 4 | 1 43 | 10 22 | 10 50 |
| 187 | 6 | Mon. | 4 37 | 7 32 | 4 | 2 23 | 11 17 | 11 44 |
| 188 | 7 | Tues. | 4 38 | 7 31 | 5 | 3 6 | . | 0 9 |
| 189 | 8 | Wed. | 4 38 | 7 31 | 5 | 3 54 | 0 32 | 0 53 |
| 190 | 9 | Thurs. | 4 39 | 7 30 | 5 | rises. | 1 13 | 1 33 |
| 191 | 10 | Fri. | 4 39 | 7 30 | 5 | 7 52 | 1 53 | 2 14 |
| 192 | 11 | Sat. | 4 40 | 7 30 | 5 | 8 28 | 2 35 | 2 54 |
| 193 | 12 | Sun. | 4 41 | 7 29 | 5 | 9 1 | 3 13 | 3 32 |
| 194 | 13 | Mon. | 4 41 | 7 29 | 5 | 9 32 | 3 52 | 4 12 |
| 195 | 14 | Tues. | 4 42 | 7 28 | 6 | 10 2 | 4 32 | 4 51 |
| 196 | 15 | Wed. | 4 43 | 7 28 | 6 | 10 32 | 5 11 | 5 31 |
| 197 | 16 | Thurs. | 4 44 | 7 27 | 6 | 11 4 | 5 52 | 6 13 |
| 198 | 17 | Fri. | 4 45 | 7 27 | 6 | 11 38 | 6 35 | 7 3 |
| 199 | 18 | Sat. | 4 45 | 7 26 | 6 | morn. | 7 26 | 7 55 |
| 200 | 19 | Sun. | 4 46 | 7 26 | 6 | 0 16 | 8 27 | 9 1 |
| 201 | 20 | Mon. | 4 47 | 7 25 | 6 | 0 59 | 9 36 | 10 11 |
| 202 | 21 | Tues. | 4 48 | 7 24 | 6 | 1 48 | 10 45 | 11 19 |
| 203 | 22 | Wed. | 4 49 | 7 23 | 6 | 2 45 | 11 52 | . |
| 204 | 23 | Thurs. | 4 49 | 7 23 | 6 | 3 51 | 0 23 | 0 52 |
| 205 | 24 | Fri. | 4 50 | 7 22 | 6 | sets. | 1 18 | 1 43 |
| 206 | 25 | Sat. | 4 51 | 7 21 | 6 | 8 2 | 2 10 | 2 36 |
| 207 | 26 | Sun. | 4 52 | 7 20 | 6 | 8 42 | 3 1 | 3 26 |
| 208 | 27 | Mun. | 4 53 | 7 18 | 6 | 9 20 | 3 50 | 4 14 |
| 209 | 28 | Tues. | 4 54 | 7 19 | 6 | 9 55 | 4 38 | 5 1 |
| 210 | 29 | Wed. | 4 55 | 7 13 | 6 | 10 30 | 5 24 | 5 46 |
| 211 | 30 | Thurs. | 4 56 | 7 17 | 6 | 11 5 | 6 9 | 6 33 |
| 212 | 31 | Fri. | 4 57 | 7 16 | 6 | 11 42 | 6 57 | 7 22 |

Conjectures of the Weather.

The 1st-3rd, cloudy; 4th-6th, warm and clear; 7th-9th, cloudy and thunder; 10-12th, clear and warm; 13th-14th, changeable; 15th-17th, pleasant; 18th-20th, rain and thunder; 21st-22d, fair; 23d-24th, changeable; 25th-26th, pleasant; 27th-28th, warm; 29th-31st, fair.

CONTINUED CROPS.

Plow the crimson clover under and plant the land to corn. By so doing the cost of fertilizer will be reduced, as the crimson clover will supply all the nitrogen needed for the corn. After the corn is "laid by" it will pay to then broadcast cow peas between the rows, working the seed in with a cultivator. By harvesting the corn and removing the crop to the barn to be shredded, and then turning the pigs on the cow peas, they will not only grow rapidly, but will be fat enough to kill without the aid of corn. All kinds of stock, including poultry, will find a large share of their food in the corn field by this plan, and there will be no cost for harvesting the cow peas, as the stock will attend to that duty. It is simply making the land perform extra service without loss of fertility, as the crimson clover and cow peas will assist the land, and the animals will drop manure on the field.

POULTRY.

The best litter for the poultry house is the refuse from the hayloft. Hay beds are invigorating and the benefit derived from them is due to the work induced by the seeds. Hens in confinement will scratch and work all day in litter from the hayloft, the seeds being a complete change for them. They also relish the leaves from clover.

GREEN FOOD.

Rye will be perhaps the first green food to start off in early spring. It is also an excellent soilng crop, and may be cut and fed to stock, producing about 20 tons of green food. It contains twice as much crude fibre as pasture grass and also less protein, but gives more green food than grass. If used when too green the rye is laxative in its effects.

GRAZING.

Many of the pasture fields are grazed too close to the ground. When a herd of cows have free access to pasture they really cut the grass down many times, and much closer than is usually done with the mower. No plants will thrive if not given an opportunity to make growth, and the grass on some pastures is killed by continually checking the growth, while the feet of the animals greatly damage the grass, as the smaller the supply the more trampling by the stock.

HEN HOUSE.

Dry earth or plaster is better for the hen house than unslaked lime whose only worth is to absorb moisture, and if so it were better to desert the building used. Slaked lime is most generally used.

GUINEAS.

At least a pair of guineas on every farm, as a hawk, rat, weasel and perhaps even a skunk preventive. In warm weather they will feed themselves, as they are great foragers. They make good chickens for the table. Their eggs are delicious. The average chicken thief will not brave a coop or yard guarded by guinea fowls, with their discordant voices and aggressive tempers.

1903

8th Month,



1903

31 Days.

MOON'S PHASES.

© First Quarter . . . 8d. 3h. 54m. M.

© Last Quarter, . . . 22d. 2h. 51m. A.

© Full Moon . . . 16d. 0h 22m. M.

© New Moon . . . 29d. 3h. 34m. A.

Aug. 2nd—Day's Length: 14 hours, 16 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|---------------|---------|-------|----------------------------|-------|
| | | | Sun. Rises. | Sun. Sets. | Slow M. | Moon. | High Water Philadelphia | |
| 213 | 1 | Sat. | 4 58 | 7 15 | 6 | morn. | 7 50 | 8 21 |
| 214 | 2 | Sun. | 4 58 | 7 14 | 6 | 0 22 | 8 52 | 9 22 |
| 215 | 3 | Mon. | 4 59 | 7 13 | 6 | 1 6 | 9 51 | 10 15 |
| 216 | 4 | Tues. | 5 0 | 7 12 | 6 | 1 59 | 10 47 | 11 19 |
| 217 | 5 | Wed. | 5 1 | 7 11 | 6 | 2 36 | 11 41 | . |
| 218 | 6 | Thurs. | 5 2 | 7 10 | 6 | 3 30 | 0 5 | 0 27 |
| 219 | 7 | Fri. | 5 3 | 7 8 | 6 | 4 25 | 0 48 | 1 7 |
| 220 | 8 | Sat. | 5 4 | 7 7 | 6 | rises | 1 26 | 1 45 |
| 221 | 9 | Sun. | 5 5 | 7 6 | 5 | 7 37 | 2 5 | 2 24 |
| 222 | 10 | Mon. | 5 6 | 7 5 | 5 | 8 6 | 2 44 | 3 4 |
| 223 | 11 | Tues. | 5 7 | 7 4 | 5 | 8 36 | 3 23 | 3 42 |
| 224 | 12 | Wed. | 5 8 | 7 2 | 5 | 9 7 | 4 1 | 4 21 |
| 225 | 13 | Thurs. | 5 9 | 7 1 | 5 | 9 40 | 4 42 | 5 3 |
| 226 | 14 | Fri. | 5 10 | 7 0 | 5 | 10 16 | 5 26 | 5 47 |
| 227 | 15 | Sat. | 5 11 | 6 59 | 4 | 10 55 | 6 10 | 6 34 |
| 228 | 16 | Sun. | 5 12 | 6 57 | 4 | 11 40 | 7 0 | 7 29 |
| 229 | 17 | Mon. | 5 12 | 6 55 | 4 | morn. | 8 2 | 8 38 |
| 230 | 18 | Tues. | 5 13 | 6 54 | 4 | 0 32 | 9 15 | 9 51 |
| 231 | 19 | Wed. | 5 14 | 6 53 | 4 | 1 31 | 10 27 | 11 2 |
| 232 | 20 | Thurs. | 5 15 | 6 52 | 3 | 2 35 | 11 35 | . |
| 233 | 21 | Fri. | 5 16 | 6 50 | 3 | 3 46 | 0 2 | 0 36 |
| 234 | 22 | Sat. | 5 17 | 6 49 | 3 | sets | 1 7 | 1 25 |
| 235 | 23 | Sun. | 5 18 | 6 47 | 3 | 7 14 | 1 50 | 2 14 |
| 236 | 24 | Mon. | 5 19 | 6 46 | 2 | 7 51 | 2 38 | 3 2 |
| 237 | 25 | Tues. | 5 20 | 6 45 | 2 | 8 28 | 3 25 | 3 48 |
| 238 | 26 | Wed. | 5 21 | 6 43 | 2 | 9 4 | 4 11 | 4 33 |
| 239 | 27 | Thurs. | 5 22 | 6 42 | 2 | 9 47 | 4 56 | 5 19 |
| 240 | 28 | Fri. | 5 23 | 6 40 | 1 | 10 20 | 5 42 | 6 5 |
| 241 | 29 | Sat. | 5 24 | 6 39 | 1 | 11 2 | 6 29 | 6 53 |
| 242 | 30 | Sun. | 5 25 | 6 37 | 1 | 11 48 | 7 19 | 7 47 |
| 243 | 31 | Mon. | 5 26 | 6 36 | .0 | morn. | 8 16 | 8 46 |

Conjectures of the Weather.

The 1st-3rd, pleasant; 4th-6th, sultry; 7th, 8th, clear and warm; 9th-11th, cloudy and thunder; 12th-14th, warm and fair; 15th, 16th, sultry and warm; 17th, 18th, cloudy; 19th-21st, variable; 22d-24th, pleasant; 25th, 26th, changeable; 27th, 28th, sultry; 29th-31st, clear and warm.

COW PEAS.

The Southern cow pea, (in reality a bean), has been cultivated in the South for many years, but only in recent years has it been demonstrated that most all varieties are adapted to cultivation throughout nearly the entire United States. They now promise to become one of our most valuable farm products.

The yield of hay runs from 1 to 3 tons per acre. The Rhode Island experiment station reporting one year a yield per acre of 35,000 pounds green vines, making 5½ tons dried hay. The yield of peas range from 15 to 30 bushels per acre, occasionally as high as 50 bushels.

They have been grown by dairymen with very satisfactory results, following winter rye, which was cut green in June for dairy cows, then stubble turned under and sown to mixed peas and oats, furnishing a large amount of forage in August, when grass pastures usually short, and producing a supply of milk as abundant as in early summer months.

As a fertilizer they come next to clover, to be plowed under when they commence to blossom; they will grow on land that will not produce clover.

As a fertilizer crop it excels all others, absorbing from the air more nitrogen than clover, and drawing from the sub soil large amount of potash and phosphoric acid, depositing these fertilizer elements in the surface soil just where needed for succeeding crops.

Cow peas afford excellent midsummer pasturage, but the best way for using green is to cut and feed to stock.

CANADA PEAS.

Considerably used for feeding pigeons, being perfectly round and very small. They are also used for fodder; when sown in oats and cut green they become very nutritious.

SCARLET CLOVER.

Pre-eminently the place to seed scarlet clover is our cornfields, and that should be done immediately after the cultivation of the corn. If left until after a rainfall there will be a crust form on the ground upon which the seed will lay and the next rain will carry it in bunches to the bottom of the field and the catch be spoiled. The seed, if sown immediately after the harrow, does not need be covered. Bear in mind, the more the ground is shaded, as in the orchard or corn field, the earlier the seed may be sown, as the young plant is in a measure protected from the sun, but for clean culture August or September is soon enough.

THE LAWN.

The lawn in winter may be covered with horse manure, and if the manure is free from litter it will be an advantage. Do not scatter the manure in lumps and wait for the frost to pulverize the lumps, but apply the manure evenly. Early in the spring rake the lawn thoroughly, removing all material that is not in fine condition, and then apply a fertilizer composed of 100 pounds nitrate of soda, 125 pounds sulphate of potash, and 100 pounds acidulated phosphate per acre. If the grass was not destroyed by the drought of last summer it will grow rapidly when spring opens if the lawn is treated in the manner suggested. It is always best to freshen a lawn in the spring with new seed, even if grass is growing. There is always some that dies out and this should be replaced.

Fall sown wheat needs a compact seed-bed in order to stand drouth. Therefore the breaking should be done early, and a few heavy rains should be secured before planting, if possible. A heavy land roller passing both ways over the field will help to pack the soil, and a light harrow will loosen the surface; then the ground is ready for the seed.

She—You never come to call on me any more.

He—I'm afraid.

She—Oh, the dog is kept chained now.

He—Yes, but your father is not.

1903

9th Month.



1903

30 Days.

MOON'S PHASES.

© First Quarter . . 6d. 7h. 20m. A.
㉙ Full Moon . . . 14d. 8h. 13m. M.

© Last Quarter . . . 20d. 11h. 31m. A.
㉚ New Moon . . . 28d. 8h. 8m. M.

Sept. 6th—Day's Length: 12 hours, 55 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|---------------|-------|----------------------------|-------|-------|
| | | | Sun. Rises. | Sun. Sets. | Moon. | High Water Philadelphia | morn. | even. |
| 244 | 1 | Tues. | 5 27 | 6 34 | 0 | 0 33 | 9 17 | 9 46 |
| 245 | 2 | Wed. | 5 28 | 6 33 | 0 | 1 26 | 10 13 | 10 49 |
| 246 | 3 | Thurs. | 5 29 | 6 31 | 0 | 2 20 | 11 6 | 11 32 |
| 247 | 4 | Fri. | 5 30 | 6 29 | 1 | 3 14 | 11 56 | . |
| 248 | 5 | Sat. | 5 31 | 6 28 | 1 | 4 10 | 0 19 | 0 40 |
| 249 | 6 | Sun. | 5 31 | 6 26 | 1 | rises. | 0 59 | 1 17 |
| 250 | 7 | Mon. | 5 32 | 6 25 | 2 | 6 41 | 1 35 | 1 54 |
| 251 | 8 | Tues. | 5 33 | 6 23 | 2 | 7 10 | 2 14 | 2 34 |
| 252 | 9 | Wed. | 5 34 | 6 21 | 2 | 7 43 | 2 54 | 3 14 |
| 253 | 10 | Thurs. | 5 35 | 6 20 | 3 | 8 18 | 3 34 | 3 55 |
| 254 | 11 | Fri. | 5 36 | 6 18 | 3 | 8 56 | 4 17 | 4 40 |
| 255 | 12 | Sat. | 5 37 | 6 17 | 3 | 9 38 | 5 4 | 5 28 |
| 256 | 13 | Sun. | 5 38 | 6 15 | 4 | 10 27 | 5 52 | 6 18 |
| 257 | 14 | Mon. | 5 39 | 6 13 | 4 | 11 21 | 6 45 | 7 15 |
| 258 | 15 | Tues. | 5 40 | 6 11 | 5 | morn. | 7 47 | 8 22 |
| 259 | 16 | Wed. | 5 41 | 6 10 | 5 | 0 20 | 8 59 | 9 35 |
| 260 | 17 | Thurs. | 5 42 | 6 8 | 5 | 1 27 | 10 10 | 10 44 |
| 261 | 18 | Fri. | 5 43 | 6 6 | 6 | 2 37 | 11 16 | 11 46 |
| 262 | 19 | Sat. | 5 44 | 6 4 | 6 | 3 48 | . | 0 15 |
| 263 | 20 | Sun. | 5 45 | 6 3 | 6 | 4 59 | 0 41 | 1 4 |
| 264 | 21 | Mon. | 5 45 | 6 1 | 7 | sets. | 1 27 | 1 49 |
| 265 | 22 | Tues. | 5 46 | 6 0 | 7 | 6 57 | 2 12 | 2 36 |
| 266 | 23 | Wed. | 5 47 | 5 58 | 7 | 7 35 | 2 59 | 3 22 |
| 267 | 24 | Thurs. | 5 48 | 5 56 | 8 | 8 14 | 3 44 | 4 6 |
| 268 | 25 | Fri. | 5 49 | 5 55 | 8 | 8 57 | 4 29 | 4 52 |
| 269 | 26 | Sat. | 5 50 | 5 53 | 8 | 9 42 | 5 14 | 5 37 |
| 270 | 27 | Sun. | 5 51 | 5 52 | 9 | 10 29 | 6 0 | 6 24 |
| 271 | 28 | Mun. | 5 52 | 5 50 | 9 | 11 19 | 6 48 | 7 13 |
| 272 | 29 | Tues. | 5 53 | 5 48 | 9 | morn. | 7 40 | 8 7 |
| 273 | 30 | Wed. | 5 54 | 5 46 | 10 | 0 12 | 8 36 | 9 5 |

Conjectures of the Weather.

The 1st—3rd, clear. 4th–6th, warm and sultry; 7th–9th, cloudy and thunder; 10th–12th, clear and warm; 13th, 14th, changeable; 15th–17th, pleasant; 18th–20th, rain and warm; 21st, 22d, fair; 23rd, 24th, changeable; 25th, 26th, balmy; 27th, 28th, pleasant; 29th, 30th, cool.

HORSE TALK.

Such food as will keep a horse in good condition when idle must be increased one-half when required to perform hard work.

The horse doing little or no work can be maintained on cheap, coarse foods, such as hay, wheat bran, etc. He can use his energy in digesting coarse foods.

When he is required to do hard or fast work he must have his food in the most available form, so that the food is quickly and easily assimilated, and he will be ready to give his whole energy to the work at hand.

Whole, bright oats and timothy hay given in small quantities are the best foods for the road horse.

Eight pounds of hay and fourteen pounds of oats should maintain an average horse doing considerable road work.

Horses doing slow work do well with a part ration of corn.

The following is a good ration for a 1,000 pound horse doing average work: Six pounds hay, two pounds wheat bran, four pounds corn, eight pounds oats, per day.

Horses fed on a corn ration are not so strong and hardy as the oat-fed horse, and are more subject to founder.

Never let the horse fill up at one draft when he is very tired or when water has been withheld until he is famished.

A horse should not be overfed on hay. When given in too large quantities the digestive system becomes overtaxed and indigestion results.

COW TALK.

The last half of the milking is over 100 per cent richer than the first half.

The cow is at her prime at seven years old. After the twelfth and thirteenth year her productiveness is usually lessened.

Heavy feeders are usually the most profitable animals. They consume the greatest amount above maintenance and it is returned in milk and butter.

Cows should be able to drink water at will. When this provision is not made the milk flow is lessened.

If salt is not provided the milk flow will be lessened.

One pound of grain is equal to ten pounds of mangels in feeding cows.

When the pasture is luxuriant there is no profit to be derived from feeding grain, but when the pasture falls off the deficiency must be made by grain or green forage or the milk flow will fall off and can not be brought up again.

Heifers should be grained and well cared for to enable them to make the proper growth.

Wheat bran and middlings are valuable foods for dairy cows on account of the large amount of nitrogen and mineral matter which they contain.

Cows can be fed six to eight pounds of wheat bran and four to six pounds of middlings daily.

The following is a good ration for an average cow per day: Twenty pounds hay, four pounds pea meal, five pounds oatmeal (ground oats), eight pounds corn-meal.

VETCH AS A COVER CROP.

The hairy vetch sometimes called sand vetch (*Vicia villosa*), promises to out-class crimson clover in popular favor as a winter cover crop and for forage.

It is a perfectly hardy plant in the vicinity of Philadelphia and may be sown as late as October 1, a full month later than crimson clover.

It is a leguminous plant, along with crimson clover, but it more nearly resembles a pea than a clover. It has a long, slender, climbing vine, which readily clings to rye. It is a good plan to sow winter vetch and rye together.

Winter vetch blossoms in the latter part of May in this latitude, and bears racemes of pretty purple flowers. The seed ripens in June. It is fit to cut for green fodder in April, or for hay in May.

It is a nitrogen gatherer, and promises to be of especial value for use upon land that would otherwise be bare during the winter months. It will pay to plant vetch in the autumn for the sake of adding humus to the soil, even if the vetch is to be plowed under in March or April.

1903

10th Month,



1903

31 Days.

MOON'S PHASES.

☽ Full Moon . . . 6d. 10h. 23m. M.

☽ New Moon . . . 20d. 10h. 30m. M.

☽ Last Quarter . . . 13d. 2h. 56m. A.

☽ First Quarter . . . 28d. 3h. 32m. M.

Oct. 4th—Day's Length: 11 hours, 42 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|---------------|------------|-------|----------------------------|-------|
| | | | Sun. Rises. | Sun. Sets. | Fast M. | Moon. | High Water Philadelphia | |
| 274 | 1 | Thurs. | 5 55 | 5 45 | 10 | 1 6 | 9 33 | 10 0 |
| 275 | 2 | Fri. | 5 56 | 5 43 | 10 | 2 1 | 10 27 | 10 53 |
| 276 | 3 | Sat. | 5 57 | 5 41 | 11 | 2 56 | 11 18 | 11 42 |
| 277 | 4 | Sun. | 5 58 | 5 40 | 11 | 3 53 | . | 0 5 |
| 278 | 5 | Mon. | 5 59 | 5 38 | 11 | 4 53 | 0 27 | 0 47 |
| 279 | 6 | Tues. | 6 0 | 5 37 | 12 | rises | 1 6 | 1 25 |
| 280 | 7 | Wed. | 6 1 | 5 35 | 12 | 6 17 | 1 45 | 2 7 |
| 281 | 8 | Thurs. | 6 2 | 5 34 | 12 | 6 56 | 2 29 | 3 51 |
| 282 | 9 | Fri. | 6 3 | 5 32 | 12 | 7 38 | 3 13 | 3 36 |
| 283 | 10 | Sat. | 6 4 | 5 31 | 13 | 8 24 | 3 59 | 4 24 |
| 284 | 11 | Sun. | 6 5 | 5 29 | 13 | 9 16 | 4 49 | 5 14 |
| 285 | 12 | Mon. | 6 6 | 5 28 | 13 | 10 14 | 5 40 | 6 7 |
| 286 | 13 | Tues. | 6 7 | 5 26 | 14 | 11 17 | 6 34 | 7 2 |
| 287 | 14 | Wed. | 6 8 | 5 24 | 14 | morn. | 7 32 | 8 5 |
| 288 | 15 | Thurs. | 6 9 | 5 23 | 14 | 0 23 | 8 41 | 9 15 |
| 289 | 16 | Fri. | 6 11 | 5 21 | 14 | 1 31 | 9 49 | 10 21 |
| 290 | 17 | Sat. | 6 12 | 5 20 | 14 | 2 49 | 10 52 | 11 21 |
| 291 | 18 | Sun. | 6 13 | 5 18 | 15 | 3 48 | 11 49 | . |
| 292 | 19 | Mon. | 6 14 | 5 17 | 15 | 4 57 | 0 15 | 0 40 |
| 293 | 20 | Tues. | 6 15 | 5 15 | 15 | sets | 1 3 | 1 24 |
| 294 | 21 | Wed. | 6 16 | 5 14 | 15 | 6 8 | 1 46 | 2 9 |
| 295 | 22 | Thurs. | 6 17 | 5 12 | 15 | 6 49 | 2 32 | 2 55 |
| 296 | 23 | Fri. | 6 18 | 5 11 | 15 | 7 33 | 3 17 | 3 39 |
| 297 | 24 | Sat. | 6 19 | 5 10 | 16 | 8 21 | 4 1 | 4 24 |
| 298 | 25 | Sun. | 6 20 | 5 8 | 16 | 9 11 | 4 47 | 5 10 |
| 299 | 26 | Mon. | 6 22 | 5 7 | 16 | 10 3 | 5 32 | 5 54 |
| 300 | 27 | Tues. | 6 23 | 5 5 | 16 | 10 57 | 6 16 | 6 39 |
| 301 | 28 | Wed. | 6 24 | 5 4 | 16 | 11 51 | 7 2 | 7 26 |
| 302 | 29 | Thurs. | 6 25 | 5 3 | 16 | morn. | 7 52 | 8 20 |
| 303 | 30 | Fri. | 6 26 | 5 2 | 16 | 0 46 | 8 47 | 9 14 |
| 304 | 31 | Sat. | 6 27 | 5 0 | 16 | 1 42 | 9 41 | 10 7 |

Conjectures of the Weather.

The 1st-3rd, pleasant; 4th-6th, variable; 7th, 8th, clear, balmy; 9th-11th, cloudy and cool; 12th-14th, pleasant and fair; 15th, 16th, cloudy and warm; 17th, 18th, cool; 19th-21st, variable; 22d-24th, pleasant; 25th, 26th, changeable; 27th, 28th, cloudy; 29th-31st, clear and pleasant.

A CHEAP LICE DESTROYER.

A Kentucky correspondent says the most effective compound for the purpose he has ever tried is made as follows: Three quarts crude carbolic acid; one quart coal-oil; one ounce oil of sassafras; mix and shake well. For fowls, take a paint brush or whitewash brush and wash over roost poles, crevices, etc., where mites might accumulate, with the liquid once a week for two or three weeks and you will soon get rid of all vermin.

For lice and fleas on stock or dogs put some of the liquid into a sprinkler and sprinkle the bedding of the animals about three times in a fortnight, and the pests will soon all disappear. It is the fumes arising from the liquid that kills the vermin.

This is also the best disinfectant known, and prevents cholera and other infectious diseases by destroying the germs that produce them.

To find the amount of hay in a mow, allow 512 cubic feet for a ton, and it will come out very near correct.

For hog pasture nothing is better than blue grass, white clover and cow peas.

One tablespoonful of coal oil put into a barrel of rain-water full of "wiggle tails," stirred thoroughly, will destroy them all within an hour, rendering the water even to the taste sweet and pure. A gobletful of the oil will purify an entire cistern.

Leaves make the best kind of bedding and are an important addition to the manure heap. When used in the stall during very cold weather, they prevent draughts of air along the floors and retain warmth. They cost nothing but the labor of raking and hauling and a large supply should be stored away for winter use under cover, so as to have them dry.

HOW SEEDS TRAVEL.

If you are out in the fields among the flowers in the late summer or early fall days, you will notice many small particles floating in the air, some high, some low; if you catch one of these flying motes you will find it is a seed. Sometimes little threads or filaments are attached to the seed; these spread themselves out and act like little winds and keep the seed from falling in its passage through the air.

Besides being carried by the wind many seeds are carried by animals. Sheep are great collectors of seeds, as their long wool catches and holds the seed pods which are carried to the other end of the pasture, or perhaps to some distant farm never before infested by that kind of weeds. Roving dogs, especially collies and other long-haired kinds, bring burrs of burdock and similar weeds to their owners' farms. Many seeds are carried in the stomachs of animals and are thus taken a great distance, sometimes even into foreign countries. Birds often carry seeds a great distance, not only in their stomachs but on their feathers, sometimes a bird starts with a seed in its mouth and drops it on its way. Long rows of cedar trees along farm fences in certain sections are examples of tree planting through the agency of birds.

Water plays a great part in the distribution of seeds, swiftly flowing water often carries seeds a great distance. The ocean, too, does its share of seed carrying, and tropical islands sometimes exchange seeds by means of the tides.

No doubt you have been the unconscious distributor of troublesome weeds by plucking burrs off your garments and carelessly casting them away.

It is not the fault of the seed purchased from your storekeeper or seedman (if you get the best recleaned) that causes the growth of weeds in your field. We have the machinery for recleaning seed and taking out foul stuff, and when the best seed is asked for you may rely upon it that the quality is not only the best we have but the best that can be gotten and is as free from foul weeds as machinery can make it.

1903

11th Month,



1903

30 Days.

MOON'S PHASES.

☽ Full Moon . . . 5d. 0h. 27m. M.
☽ Last Quarter . . . 11d. 9h 46m A.

☽ New Moon . . . 19d. 0h. 10m. M.
☽ First Quarter . . . 27d. 0h. 36m. M.

Nov. 1st—Day's Length: 10 hours, 31 minutes.

CALENDAR FOR
NEW YORK CITY, PHILADELPHIA,
Pennsylvania, Connecticut, New Jersey, Ohio,
Indiana and Illinois.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | Sun Rises. | Sun Sets. | | Moon. | High Water Philadelphia |
|-------------|--------------|-------------|------------|-----------|---------|-------|-------------------------|
| | | | H. M. | H. M. | Fast M. | H. M. | morn. even. |
| 305 | 1 | Sun. | 6 28 | 4 59 | 16 | 2 40 | 10 34 11 0 |
| 306 | 2 | Mon. | 6 28 | 4 58 | 16 | 3 39 | 11 25 11 50 |
| 307 | 3 | Tues. | 6 30 | 4 57 | 16 | 4 40 | 0 14 |
| 308 | 4 | Wed. | 6 31 | 4 56 | 16 | 5 42 | 0 37 0 59 |
| 309 | 5 | Thurs. | 6 33 | 4 54 | 16 | rises | 1 20 1 43 |
| 310 | 6 | Fri. | 6 34 | 4 53 | 16 | 6 19 | 2 6 2 30 |
| 311 | 7 | Sat. | 6 35 | 4 52 | 16 | 7 10 | 2 55 3 20 |
| 312 | 8 | Sun. | 6 36 | 4 51 | 16 | 8 7 | 3 46 4 12 |
| 313 | 9 | Mon. | 6 37 | 4 50 | 16 | 9 9 | 4 38 5 4 |
| 314 | 10 | Tues. | 6 39 | 4 49 | 16 | 10 15 | 5 30 5 56 |
| 315 | 11 | Wed. | 6 40 | 4 48 | 16 | 11 22 | 6 23 6 50 |
| 316 | 12 | Thurs. | 6 41 | 4 47 | 16 | morn. | 7 18 7 48 |
| 317 | 13 | Fri. | 6 42 | 4 46 | 16 | 0 29 | 8 20 8 52 |
| 318 | 14 | Sat. | 6 43 | 4 45 | 16 | 1 37 | 9 24 9 54 |
| 319 | 15 | Sun. | 6 45 | 4 45 | 15 | 2 44 | 10 24 10 53 |
| 320 | 16 | Mon. | 6 46 | 4 44 | 15 | 3 49 | 11 22 11 49 |
| 321 | 17 | Tues. | 6 47 | 4 43 | 15 | 4 54 | 0 15 |
| 322 | 18 | Wed. | 6 48 | 4 42 | 15 | 5 57 | 0 39 1 1 |
| 323 | 19 | Thurs. | 6 49 | 4 41 | 15 | sets | 1 22 1 44 |
| 324 | 20 | Fri. | 6 51 | 4 41 | 14 | 6 12 | 2 6 2 29 |
| 325 | 21 | Sat. | 6 52 | 4 40 | 14 | 7 1 | 2 52 3 14 |
| 326 | 22 | Sun. | 6 53 | 4 39 | 14 | 7 52 | 3 35 3 57 |
| 327 | 23 | Mon. | 6 54 | 4 39 | 14 | 8 45 | 4 19 4 41 |
| 328 | 24 | Tues. | 6 55 | 4 38 | 13 | 9 39 | 5 2 5 23 |
| 329 | 25 | Wed. | 6 56 | 4 38 | 13 | 10 33 | 5 44 6 4 |
| 330 | 26 | Thurs. | 6 57 | 4 37 | 13 | 11 29 | 6 25 6 46 |
| 331 | 27 | Fri. | 6 58 | 4 37 | 13 | morn | 7 9 7 32 |
| 332 | 28 | Sat. | 6 59 | 4 37 | 12 | 0 26 | 7 58 8 25 |
| 333 | 29 | Sun. | 7 0 | 4 36 | 12 | 1 24 | 8 53 9 22 |
| 334 | 30 | Mon. | 7 1 | 4 36 | 11 | 2 23 | 9 50 10 17 |

Conjectures of the Weather.

The 1st-3rd, clear; 4th-6th, cold and snow; 7th, 8th, cloudy and blustery; 9th-11th, clear and windy; 12th-14th, changeable; 15th, 16th, pleasant; 17th, 18th, snow and cold; 19th-21st, fair; 22d-24th, changeable; 25th, 26th, snow; 27th, 28th, pleasant; 29th-30th, cold.

ILLUSTRATED CATALOGUE

WITH

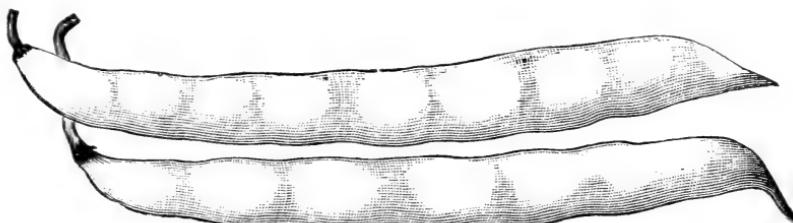
General Directions for Cultivation.

The Terms and Prices of Vegetable Seeds will be found in the Retail Price List in last part of Catalogue.



Soak the seed twenty-four hours in warm water, and sow in drills, one foot apart. When the plants are well up, thin to three or four inches in the row, and give frequent and thorough cultivation during the summer. The second season prepare a bed by deep spading or trenching, working in a large quantity of well rotted manure. Dig trenches four feet apart and twelve to sixteen inches deep, and spade in at least four inches of well rotted manure in the bottom. Set the plants in the trench eighteen inches apart, covering them with about two inches of fine soil. After the plants are up, gradually fill up the trenches, and give frequent and thorough cultivation. The second season, early in the spring, spade in a heavy dressing of manure and about two quarts of salt to the square rod. Cultivate well. The next season it may be cut for the table two or three times, taking care to cut all as fast as it appears. After the final cutting, spade in a liberal dressing of fine manure and sow one quart of salt to the square rod. The next season, and ever after that, the bed should give a full crop, but should be annually manured after the last cutting and well cultivated through the remainder of the summer. The tops should not be cut until dead ripe.

Conover's Colossal.—A mammoth variety of vigorous growth, sending up from fifteen to forty sprouts from one to two inches in diameter. Color deep green, and crown very close.



Golden Wax Bean.—This bean has long been and still continues the standard wax variety for general use, and while many varieties have been introduced claiming to be superior in some respects and aiming to replace it, they have all sooner or later been forced to the rear as not possessing as many good qualities in as high degree. Vines medium size, erect, moderately spreading, hardy and productive, with small, smooth leaves, and small white blossoms, pods are long, nearly straight, broad, flat, golden yellow, very fleshy and wax-like, with short, fleshy, green point, cooking quickly as snaps, shelling well when green, and of the highest quality in both conditions. Beans medium size, oval, white, more or less covered with two shades of purple red.

BEANS—Dwarf, Bush, or Snap.

Under this head are classed all the low growing sorts. They are so extremely sensitive of frost and cold, that it is useless to plant them before the ground has become warm and light. Stir the ground often, but only when dry, because earth scattered on the leaves when they are wet with dew or rain, will cause them to rust, and greatly injure the crop.

Round Yellow Six Weeks.—One of the best green pod Beans, while this variety does not differ from the Early Yellow Kidney Six Weeks in size or general appearance of the vine, the pods are shorter, very much thicker, more fleshy, while retaining the vigor and hardness of the old sort, it is fully one week earlier. Dry Bean, color of ordinary six weeks, but it is much shorter, almost round.

Early China Red Eye.—Early, and can be used either as a string or shelled Bean.

1903

12th Month.



1903

31 Days.

MOON'S PHASES.

© First Quarter . . . 26d. 9h. 22m. A. © Last Quarter . . . 11d. 5h. 53m. M.
 ☽ Full Moon . . . 4d. 1h. 13m. A. ☽ New Moon . . . 18d. 4h. 26m. A.

Dec. 6th—Day's Length: 9 hours, 27 minutes.

| DAY OF YEAR | DAY OF MONTH | DAY OF WEEK | CALENDAR FOR NEW YORK CITY, PHILADELPHIA, Pennsylvania, Connecticut, New Jersey, Ohio, Indiana and Illinois. | | | | | |
|-------------|--------------|-------------|---|---------------|--------|--------|----------------------------|-------|
| | | | Sun. Rises. | Sun. Sets. | Fast M | Moon. | High Water Philadelphia | |
| 335 | 1 | Tues. | 7 2 | 4 35 | 11 | 3 24 | 10 45 | 11 13 |
| 336 | 2 | Wed. | 7 3 | 4 35 | 11 | 4 27 | 11 41 | |
| 337 | 3 | Thurs. | 7 4 | 4 35 | 10 | 5 32 | 0 9 | 0 35 |
| 338 | 4 | Fri. | 7 5 | 4 35 | 10 | rises. | 1 0 | 1 24 |
| 339 | 5 | Sat. | 7 6 | 4 34 | 10 | 5 55 | 1 47 | 2 14 |
| 340 | 6 | Sun. | 7 7 | 4 34 | 9 | 6 58 | 2 41 | 3 8 |
| 341 | 7 | Mon. | 7 8 | 4 34 | 9 | 8 4 | 3 34 | 4 0 |
| 342 | 8 | Tues. | 7 9 | 4 34 | 8 | 9 13 | 4 26 | 4 52 |
| 343 | 9 | Wed. | 7 10 | 4 34 | 8 | 10 22 | 5 13 | 5 43 |
| 344 | 10 | Thurs. | 7 10 | 4 34 | 7 | 11 29 | 6 7 | 6 32 |
| 345 | 11 | Fri. | 7 11 | 4 34 | 7 | morn. | 6 58 | 7 25 |
| 346 | 12 | Sat. | 7 12 | 4 34 | 7 | 0 36 | 7 54 | 8 25 |
| 347 | 13 | Sun. | 7 13 | 4 34 | 6 | 1 41 | 8 57 | 9 27 |
| 348 | 14 | Mon. | 7 14 | 4 34 | 6 | 2 44 | 9 57 | 10 27 |
| 349 | 15 | Tues. | 7 14 | 4 35 | 5 | 3 47 | 10 56 | 11 23 |
| 350 | 16 | Wed. | 7 15 | 4 35 | 5 | 4 48 | 11 50 | |
| 351 | 17 | Thurs. | 7 16 | 4 35 | 4 | 5 47 | 0 51 | 0 39 |
| 352 | 18 | Fri. | 7 17 | 4 35 | 4 | sets. | 1 0 | 1 11 |
| 353 | 19 | Sat. | 7 17 | 4 36 | 3 | 5 43 | 1 43 | 2 5 |
| 354 | 20 | Sun. | 7 18 | 4 36 | 3 | 6 35 | 2 26 | 2 47 |
| 355 | 21 | Mon. | 7 18 | 4 37 | 2 | 7 29 | 3 8 | 3 29 |
| 356 | 22 | Tues. | 7 19 | 4 37 | 2 | 8 24 | 3 50 | 4 10 |
| 357 | 23 | Wed. | 7 19 | 4 38 | 1 | 9 19 | 4 30 | 4 50 |
| 358 | 24 | Thurs. | 7 20 | 4 38 | 1 | 10 15 | 5 10 | 5 29 |
| 359 | 25 | Fri. | 7 20 | 4 39 | 0 | 11 12 | 5 49 | 6 9 |
| 360 | 26 | Sat. | 7 21 | 4 39 | S. | morn. | 6 30 | 6 51 |
| 361 | 27 | Sun. | 7 21 | 4 40 | 1 | 0 9 | 7 14 | 7 38 |
| 362 | 28 | Mon. | 7 21 | 4 41 | 1 | 1 8 | 8 6 | 8 36 |
| 363 | 29 | Tues. | 7 21 | 4 42 | 2 | 2 9 | 9 6 | 9 37 |
| 364 | 30 | Wed. | 7 22 | 4 42 | 2 | 3 11 | 10 8 | 10 39 |
| 365 | 31 | Thurs. | 7 22 | 4 43 | 3 | 4 15 | 11 11 | 11 42 |

Conjectures of the Weather.

The 1st—3rd, cold; 4th—6th, variable; 7th—9th, snow and cold; 10th—12th, pleasant; 13th, 14th, cold and blustery; 15th—17th, snow and windy; 18th—20th, pleasant; 21st, 22d, variable; 23rd, 24th, clear and cold; 25th, 26th, changeable; 27th, 28th, snow; 29th, 31st, clear and cold.

Ivory Pod Wax.—New variety, earlier than German Black Wax; long, stringless tender white pods of rich, creamy flavor.

Early Mohawk.—This sort is so much hardier than the others that it can be planted earlier and often in this way, will furnish beans fit for use before any other kind. Vines large, stout, with large coarse leaves which will stand a slight frost; blossoms large, purple; pods long straight, coarse, with long tapering point. Beans long, kidney shaped, variegated with drab-purple and brown.

Refugee, or Thousand to One.—Vines large, spreading, exceedingly hardy, with small, smooth leaves and large lilac flowers, very late, and esteemed for late planting and for use as pickles; pods long, cylindrical, green, becoming white, streaked with purple, of good quality as snaps; beans long, light-drab, dotted and splashed with purple.

Wardwell's Kidney Wax.—The vines of this variety are very large, strong growing, but are peculiarly liable to blight, but when healthy, yields a large crop of long, nearly straight, handsome, very white and wax-like pod. They are of good quality and on this account, as well as their beauty of form and color, are easily sold. They ripen about the same time as the Golden Wax. The dry beans are large, kidney shaped, white with dark markings about the eye. Market gardeners find this a profitable variety owing to the large size and handsome color of the pods.

Currie's Rust Proof Wax.—This variety is claimed to be absolutely rust proof, and is as nearly rust proof as any good wax podded bean can be, vine vigorous and productive, about the same as Kidney Wax. Dry beans bluish-black.

German Wax Black Seeded.—We are so thoroughly satisfied with this improved strain of Black wax that we have discarded the old strains altogether, this being more vigorous growing, far more productive, with a longer, whiter, more fleshy pod and unsurpassed in flavor, vines medium sized, very vigorous and hardy, withstanding rust exceedingly well. Flowers reddish white or purple. Pods medium length, borne well up among the foliage, curved, cylindrical, thick, fleshy, and of a clear, waxy-white color, with long, slightly curved point; remain a long time in condition for use as snaps. Beans small, oblong, jet black. No one can afford to plant the old strain, as this is much better in every respect.

White Seeded Valentine.—All the characteristics of the Red Valentine, with white seeds.

Crystal White Wax.—New variety, long round pods, greenish white, transparent stringless, crisp, tender and slow to harden.

German Wax (White Seeded). Ripe beans, clear white; large, handsome pods beautiful white wax color.

ROYAL DWARF WHITE KIDNEY—One of the best late kinds; as a winter bean it has no superior.

Large White Marrow.—Excellent quality, either shelled green or dry.

Dwarf, White Navy.—Seeds small, round and oval, used exclusively for field culture.

BEANS—Pole or Running.

These require a warm, mellow soil, and should not be planted until settled, warm weather. Form hills three and a half feet apart, by forking in a shovelful of fine manure; set the poles and plant to six to eight beans, and after the beans commence to run, thin to four plants to the hill. Start any that fail to climb around the pole in the same direction as the others (they will go in no other.) Fasten by sticking the end in a cut notch in the pole.

Improved Extra Large Lima.—Very superior quality, seed much larger than the ordinary large Lima, of greenish tinge; tender and sweet.

Large Lima.—One of the best pole beans for use, shelled either green or dry.

Indian Chief, or Tall Wax.—Pods of a fine waxen semi-transparent White color, crisp, tender and succulent.

Small White Lima, Carolina.—Similar to large Lima in flavor, beans much smaller but more productive.

White Dutch Case Knife.—The earliest variety of Pole Bean, excellent flavor, and good green or dry.

Horticultural.—The old favorite, used green or dry. The dry beans are very superior for cooking.

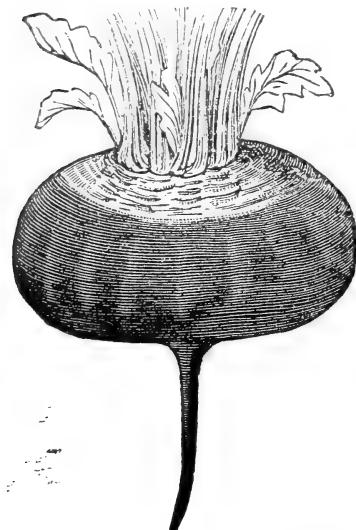
White Crease Buck.—Extremely early, very popular in the South.

BEET

All the varieties succeed best on a deep, rich, sandy loam. For early beets, sow as soon as the ground will admit, in drills fourteen inches apart, and thin to six inches in the row. For winter, sow about the middle of spring. Soak the seed twenty-four hours in luke-warm water before planting, and sow in freshly prepared ground.

The Sugar and Mangel Wurzel varieties are grown for feeding stock and should be sown from April to June in drills two feet apart, and afterwards thinned out to stand one foot apart in the rows; keep them well cultivated and you will have an abundant crop.

Extra Early Bassano.--This is the largest of the Earliest varieties, and reaches a size fit for the table amongst the first; will not keep well during the winter. Flesh coarse grained, but tender and sweet.



Extra Early Egyptian Blood Turnip.

Extra Early Egyptian Blood Turnip.--This matures quicker than any other sort. Roots of fine form, medium size, smooth and dark in color, flesh dark red, fine grained, crisp and tender.

Early Blood Turnip.--Tops small, roots blood red, turnip shaped and very tender.

Bastian's Early Turnip.--One of the best for the market gardener or for family use, early, quick growth, good shape, and bright red color.

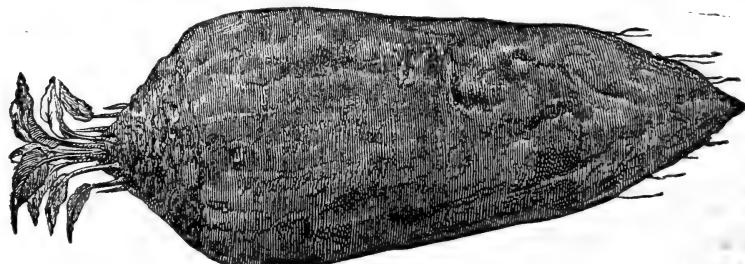
Half Long Blood.--One of the very best, unsurpassed for its winter keeping qualities.

Improved Long Dark Blood.--The best winter variety, but apt to be tough when sown too early.

Swiss Chard.--Tops used for Greens.

White Silesian Sugar.--Grown extensively or feeding stock; also for extraction of sugar.

Imperial White Sugar Beet.--A greatly improved variety of the White Silesian.

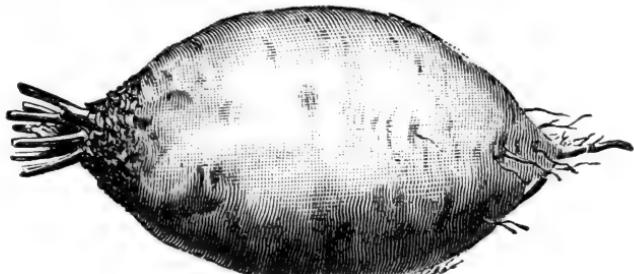


Giant Long Red Mangel Wurzel.

Giant Long Red Mangel Wurzel.--Very large, growing well out of the ground, top small for its size, straight, smooth, and of fine scarlet color.

Long Red Mangel Wurzel.--A large, long variety, for stock feeding, color light red.

Yellow Globe Mangel Wurzel.--Large, round, orange colored variety, of excellent quality, which keeps better than the long red, producing better crops on shallow soil.



Yellow Ovoid Mangel Wurzel.

Yellow Ovoid Mangel Wurzel.—Root ovoid, intermediate between the long and globe varieties, flesh solid, usually white, zoned with yellow; hardy, vigorous and productive.

Red Globe Mangel Wurzel.—Similar to Yellow Globe, except in color, which is light red or pink.

BRUSSELS SPROUTS.

This is a very desirable vegetable, though very little known in this country. It grows two or three feet high and produces from the sides of the stock numerous little sprouts somewhat resembling cabbages; they are used for Fall and Winter Greens. It can only be grown to perfection in a good soil and with a long season to complete its growth. The seed should be sown in March or April, in a frame and transplant into the open ground and cultivate as cabbage. The plants should be watered and shaded for a week or ten days to give them a good start.

CABBAGE

There is no vegetable which may be cultivated with more certainty of success than this, and few if any that are so generally useful, as it may be made to follow other crops, and will give some return, no matter how poor the soil or how negligent the cultivation, while it responds so readily to better care, that it claims a place in the finest garden, and the attention of the most skillful gardener.

The requisites for complete success *First*, good seed; there is no vegetable where the seed has more influence on the quality of the product than this, and the gardeners should invariably select the best procurable. *Second*, rich, well prepared ground *Third*, frequent and thorough cultivation.

For Cabbages, the ground must be highly manured, deeply dug or ploughed, and thoroughly worked to insure good full sized heads. A heavy, moist and fresh loam is most suitable. The early sorts should be sown very early, in hot-beds, hardened off, and transplanted eighteen to twenty-four inches apart, early in the spring. In the south, sow from the middle of September to middle of October, and transplant into cold frames to preserve through winter, setting into open ground as early as possible. In transplanting, *they must be set in the ground up to the first leaf no matter how long the stem may be.*

All through the season the ground should be cultivated *as often as possible*, as success will depend largely upon faithfulness in this particular.

The late autumn winter varieties may be sown in a seed bed, from the middle to the last of spring, and transplanted when about six inches high, three feet apart each way. Shade and water the late sowings in dry weather to get them up. It is important that the plants should stand thinly in the seed bed, or they will run up weak and slender, and be likely to make long stems.

Cabbage should be hoed every week, and the ground stirred deeper as they advance in growth, drawing up a little earth to the plants each time, until they begin to head, when they should be well dug between and hilled up. After they are partly headed, it is the practice of some gardeners to lay them over on one side. Loosening the roots will sometimes retard the bursting of full grown heads.

To preserve cabbages during the winter, pull them on a dry day, and then turn them over on the heads a few hours to drain. Set them out in a cold cellar, or bury them with the head downwards, in long trenches, in a dry situation. In the Middle States, bury the head and part of the stem in the open ground, and place over them a light covering of straw and boards to protect them in severe weather.

Early Jersey Wakefield.—Heads very compact, of medium size, varying from nearly round to conical. An early, sure heading sort, very popular with eastern market gardeners.

Early York.—Heads small, heart-shaped, firm and tender; of very dwarf growth, and may be transplanted fifteen or eighteen inches apart.



Early Large York.



Early Winningstadt.

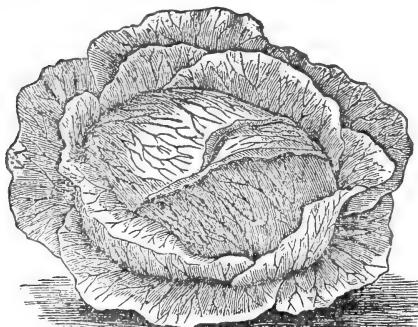
Early Large York.—Succeeds the Early York, and is equally desirable. It is of large size, about ten days later, more robust, and bears the heat better.

Early Sugar Loaf.—A compact growing variety, and the plants may be set as close as sixteen inches each way, early, but is more affected by the heat than other varieties.

Early Winningstadt.—One of the best for general use, being a sure header, and will grow a hard head under circumstances where most sorts would fail. Heads of regular conical shape, very hard, and keep well winter and summer.

Early Dwarf, Flat Dutch.—Heads of medium size, solid, flat grows low on stump, and is of good flavor.

Fottler's Early Drumhead.—An excellent second early sort, withstands heat, and heads low on stump.



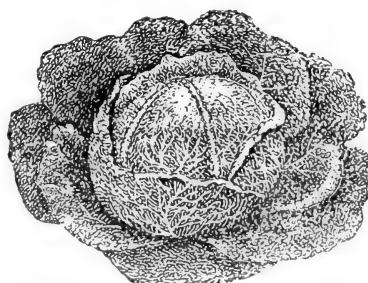
Premium Flat Dutch.



Premium Drumhead.

Premium Large Late Flat Dutch.—Superior to any late cabbage in cultivation. Our stock has been grown for us from carefully selected heads, and is equal to any other strain of this popular variety.

Red Dutch for Pickling—An esteemed sort for pickling; it forms very hard, oblong heads, round at the top, and when pure, of a dark red or purple color.



Improved American Savoy.

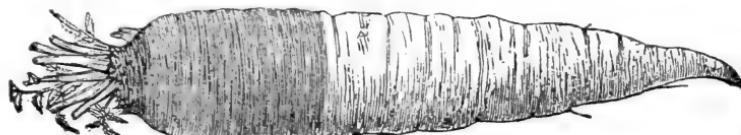
Premium Large Drumhead.—A large fall or winter variety broad, flat or round head, short stump, tender and good flavored, and is an excellent keeper.

Improved Drumhead Savoy.—The best of all Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid, and closely approaches the Cauliflower in delicacy and flavor.

CARROT

The Carrot succeeds best on a light, sandy loam, made rich by manuring the previous year. In freshly manured land, the roots often grow prolonged and ill-shaped. It is better to sow as early in the spring as the ground can be made ready, but if planting is necessarily delayed until late in the season, soak the seed twenty-four hours in tepid water, dry by mixing in sifted ashes or plaster, and sow on freshly prepared soil.

Earliest Short Horn (*for forcing*).—The earliest variety in cultivation, used mostly by market gardeners for forcing



Large White Belgian.

Early Scarlet Horn.—The best early variety, flesh deep orange, fine grained, agreeable flavor, and grows well on shallow soil.

Danvers.—Medium length, very large and heavy yielder, rich dark orange color, smooth and handsome.

Early Half Long Scarlet (Stump Root).—A popular early variety, medium size; flesh bright scarlet, brittle and of good flavor.

Improved Long Orange.—The well known standard; roots long, thickest near the crown, tapering regularly to a point, color deep orange. The best for field crop and table use.

New Red Coreless.—Resembling Danver's half long—Free from any hearts or pith.

Large White Belgian.—Grows one-third above the ground; root pure white, green above ground, with small top; raised exclusively for stock.

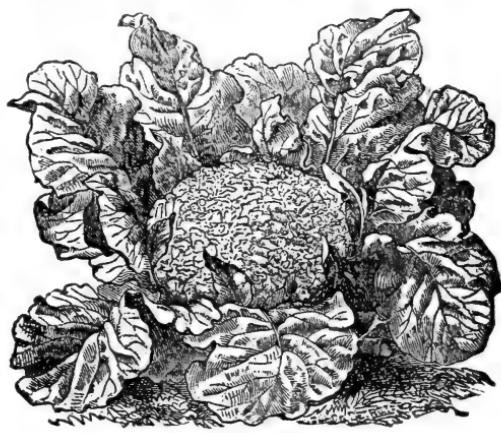


Improved Long Orange

Sow for early about middle September, in a bed of rich clean earth. In about four or five weeks afterwards the plants should be pricked out into another bed, at a distance of four inches from each other every other way; these should be encompassed with garden frames, covered with glazed sashes, and boards or shutters. The beds must be so secured, and the tops of the beds so covered as to keep out all frosts, giving them light and air every mild day throughout the winter; transplant in April into a bed of the richest earth in the garden, at a distance of two feet and a half each way. Keep them well hoed, and bring the earth gradually up to the stems. The late variety matures in the autumn, and is sown and managed similarly to winter cabbage, but is not so certain to succeed in this climate.

Early White Snowball.—The most highly flavored variety grown, and always sure to head.

Lenormand's Short Stem.—The best late variety; large, well-formed heads, extra quality, and the best late variety in cultivation.



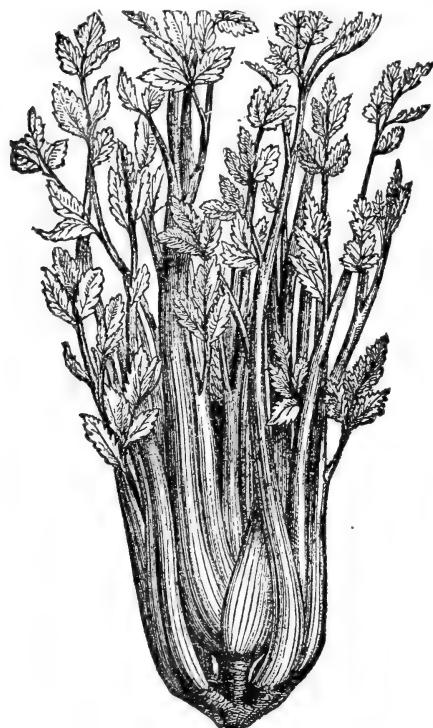
Lenormand's Short Stem.

CELERY

Sow the seed, which is very slow to come up, early in the spring, in rich, mellow ground, in a situation where it can be protected from the parching heat of the summer sun; water freely in dry weather. When the plants are five or six inches high transplant a portion

in trenches well manured; the dwarf varieties three feet and the tall four feet between the rows; plant six inches apart in the rows, pressing the earth to the plants. As they advance in growth blanch by earthing up, which should be performed gradually in fine weather, taking care not to bury the heart of the plants. A light dressing of salt applied when earthing up, is beneficial.

Silver Giant White Solid.—The very best tall growing variety, white, very solid, crisp, tender, and superior in flavor.

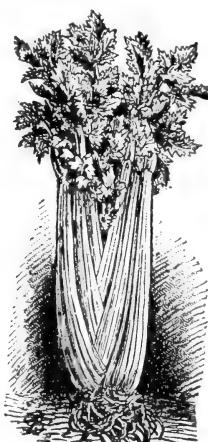


Boston Market.

Boston Market.—The most popular variety is the Boston Market. It forms a cluster of heads, instead of a single large one, and is remarkably crisp and tender. A good variety for light soils.

Dwarf Golden Heart.—Very fine; when blanched the heart is of a waxy golden yellow, rendering it a most striking and showy variety for either market or private use.

Half Dwarf White Solid.—Is of rather a yellowish white when blanched, and entirely solid, possessing the peculiar nutty flavor of the dwarf kinds, with more vigor of growth.



Dwarf Golden Heart.

Dwarf White Solid.—Dwarf, white, or stiff close habit; solid, crisp, and juicy. Keeps in good order later in the season than any other variety.

White Plume.—The stalks and heart are white, of good eating quality, crisp, solid, and of nutty flavor; is ornamental, resembling an ostrich feather.

Giant Paschal Celery.—Is from the Golden self blanching variety, but is somewhat longer growing. About 2 feet, very hard, thick and crisp, without any bitter flavor.

Celeriac, or Turnip Rooted.—The Root is cooked and sliced, used with vinegar; makes an excellent salad.

Soup, or Flavoring Celery.—For flavoring soups, stews, etc., not for sowing purposes.

COLLARDS.

Very popular in the South, where it is principally grown, and used as a substitute for cabbage.

CORN.

Judging from the long and constantly increasing lists of corn which annually appear in the Catalogues issued by the various Seed Houses throughout the country, the reader would be led to believe that they were in innumerable variety, more especially amongst the Early sweet and other kinds for table use. This, however, is not the case, as upon testing, most of them will be found identical, and the long lists will dwindle down to a few pronounced and distinct varieties; in fact, the difference exists more in name than in anything else. We have, therefore, in the present Catalogue confined ourselves to those distinct and standard varieties, which the practical experience of market and family gardeners has decided to be the best for market and family use. Should other kinds appear which are really valuable they will be placed in stock, and we will gladly procure for our customers any varieties from other Catalogues which they may desire to test.

Corn should not be planted until the ground has become sufficiently warm, as cold and wet causes it to rot. Planted every two weeks, until the middle of July, will give a succession throughout the season.

FIRST OF ALL—The very earliest grown for the Philadelphia market.

EXTRA EARLY ADAMS.—The old standard, early sort, and its earliness its principal recommendation.

EARLY MINNESOTA SUGAR—New, and reported the best Early Sugar Corn.

CORY—An entirely new Extra Early Sugar Corn, ears very large for an early variety, and said to be the earliest sugar corn known.

EARLY SHAKER SUGAR Introduced by us to the Philadelphia market many years ago; grows fine long ears for an early variety, and is unsurpassed by any of the other early kinds.

Shoe Peg—The kernel is small and very long, white and exceeding sweet and tender. Is becoming more popular every year.

EARLY LARGE EIGHT-ROWED.—This is the old market standard; a good corn, but not among the earliest.

Zig Zag—Is one of the sweetest and tastiest late corns. Resembles Evergreen except that the kernels are placed zig zag upon the cob.

Naragansett. Early Marblehead Sugar. Early Shaker Sugar.

COUNTRY GENTLEMAN—Resembles the Shoe Peg on a larger scale, surpassing it in superior qualities, viz: deepness of grain, smallness of cob and richness of flavor. Will produce from three to four ears to stalk. Much larger than the Shoe Peg.

LARGE MAMMOTH SUGAR—The largest of all varieties, productive, fine flavor and sweet. A very desirable variety for the family garden.

IMPROVED STOWELL EVERGREEN—has no superior as a late table variety; ears large, and remains green longer than any other kind.

EGYPTIAN—A new large variety, quite late; quality good, and resembles in some respects, the Evergreen.

EARLY WHITE FLINT—An excellent, productive variety, ears good size, and used for making hominy; a good table variety when cut early.

EIGHT ROWED YELLOW, (*Canada*).—Ears large, and bright yellow color, generally used for re-planting, very early.

MAMMOTH CHESTER COUNTY—One of the very best for field culture; fine large ears, and producing a large quantity of fodder.

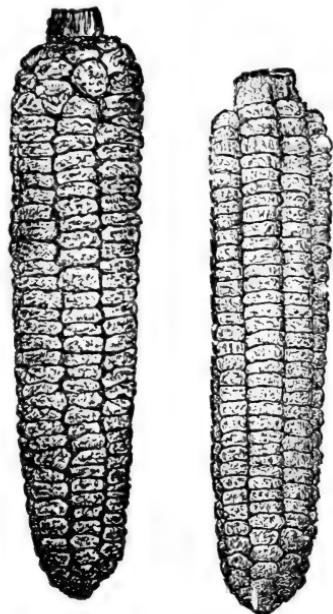
MAMMOTH DENT.—A cross between the Mammoth Chester County and the Oregon; we think this the most productive variety grown.

GOLDEN BEAUTY.—Matures as early as the Golden Dent, and surpasses it in size, beauty of grain and productiveness.

LEAMING.—One of the recently introduced varieties, medium, well grained ear, good color, and excellent for grinding.

SWEET FODDER CORN—Sown broadcast two bushels, and in drills three feet apart, one bushel per acre, either sweet or field varieties.

Mammoth Sugar Corn



CORN SALAD (Broad Leaved)

Used as a small salad throughout the winter and spring. Sow early in the spring in drills one foot apart, and keep weeds down by frequent hoeing. For winter and early spring use, was in drills in August and September. Cover with straw on approach of winter.

CRESS—Pepper Grass

CURLED.—WATER. Used as a small salad. Sow very thickly in shallow drills, on a smooth surface, at short intervals throughout the season.

CUCUMBER.

The Cucumber can be grown by any one who has a few square yards of soil with an exposure to the sun. For early use, make rich hills of well rotted manure the latter part of spring planting a dozen or more seeds, covering one-half to an inch deep, pressing the earth firmly over them. When danger from insects is over, pull all but three or four of the strongest plants, make the hills from four to six feet apart. For pickles—plant as late as middle of July,

Jersey Prolific.—Earliest and hardiest productive variety. The fruit of small size and produced in pairs.

EARLY FRAME.—Fruit is straight and well formed, flesh tender, though somewhat seedy; when young makes excellent pickles.

IMPROVED EARLY WHITE SPINE.—The very best sort for table use; vines vigorous, fruit straight and handsome, color light green, with few white prickles; tender, and of excellent flavor.



Long Green.



Early Russian.

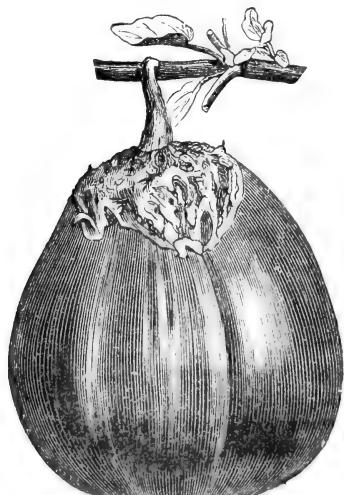


Early Frame.

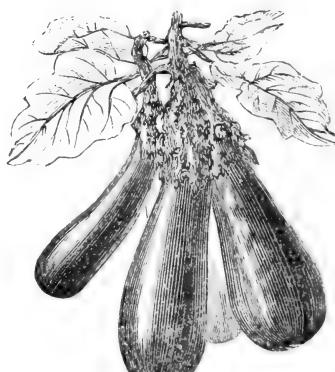
LONG GREEN (Jersey Pickle).—The best pickling variety, dark green color, tender, crisp, and productive.

SHORT GREEN PICKLE.—This is the favorite Western pickling variety, and is growing in favor here every season.

LONG GREEN TURKEY.—An excellent pickling variety, color dark green, firm and crisp.
GHERKIN (Burr Pickle.)—Small, oval shaped, prickly variety, used only for pickling.



Improved Egg-Plant.



Early Egg-Plant.

(See next page.)

EGG-PLANT.

Sow in hot-beds early in March; transplant middle of May to first of June, in a rich warm piece of ground about thirty inches apart. Draw the earth up to their stems when about a foot high. Egg-plant seed will not vegetate freely without substantial heat, and if the plant gets the least chilled in the earlier stages of growth, they seldom recover. Repeated sowings are sometimes necessary. Care should be taken in cutting the fruit so as not to disturb the roots, which injures the plants.

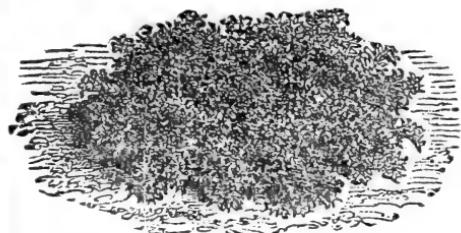
Early Long Purple.—This is one of the earliest varieties, hardy and productive; fruit long and of superior quality.

Improved New York Purple.—The best variety in cultivation; fruit large, deep purple color, occasional stripes of green around the stem; of very superior flavor.

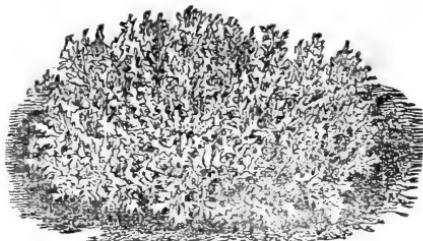
Black Pekin.—Fruit black, large, smooth and glossy. Round to globular.

ENDIVE.

An excellent Fall and Winter Salad, when Lettuce is getting scarce. Sow late in the Spring to middle of Summer in shallow drills, and thin out to a foot apart; blanch by tying the leaves together near the top.



Green Curled.



Broad Leaved Batavian.

Green Curled.—Is the hardiest variety, with beautifully curled, dark green leaves, which blanch white, and are very crisp and tender.

Broad Leaved Batavian.—Has broad, thick, plain or slightly wrinkled leaves. It is principally used for cooking, and making a larger head, is preferred for stews and soups; if the outer leaves are gathered and tied on the top, the whole plant will blanch nicely, and make an excellent salad for the table.

KALE (Borecole.)

Sow from May to June, and set out the plants in July, in good rich soil; cultivate same as cabbage. For Spring use sow in September; protect during Winter with covering of straw.

Green Curled Scotch.—About two feet high, leaves dark green, curled and wrinkled, stands winter without protection.

Dwarf German Greens.—Makes excellent greens for winter use, dwarf and easily protected during the Winter.

LEEK.

The Leek is hardy and of easy culture; sow early in Spring in trenches eight inches deep, and have soil at the bottom fine and rich; thin six to eight inches apart, and when the plants are twelve inches high, gather the leaves together and fill the trench so as to blanch the lower part of the plant.

London Flag.—This is the best variety, and succeeds better in this country than any other.

LETTUCE.

There is no vegetable which is more universally used than this. It is of easy culture, and thrives best in rich, moist soil. Its quality depends largely upon rapid and vigorous growth; to secure this, have the soil rich and mellow, with frequent surface cultivation and an abundant supply of water. For an early crop sow in September in the open ground, transplant when large enough into cold frames; protect during winter in same manner as early cabbage; plant out early in April, or sow in hot-beds in February or March, and afterwards transplant.



Simpson's Early Curled.

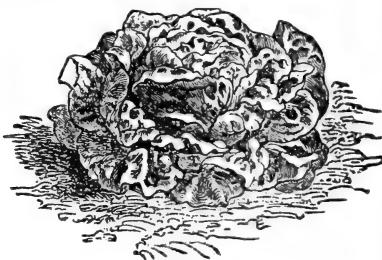
EARLY CURED SILEASIAN--An early variety of strong growth, leaves large, light yellow and wrinkled. It does not form a head, but is the best variety for cutting when young.

New Treasure--This new variety forms a fine large solid head, with leaves of a richly, creamy, yellow color. Is a fine early variety, although very slow in going to seed.

LARGE DRUMHEAD--Heads large and fine, pale green without, and white at centre; crisp and tender, fine summer variety.



Philadelphia White Dutch Butter.



Brown Dutch.

PHILADELPHIA WHITE DUTCH BUTTER.--The best variety for cultivation in the latitude of Philadelphia, fine large heads, and stands the heat of Summer well.

ROYAL CABBAGE--Large, crisp and tender: a good Summer variety.

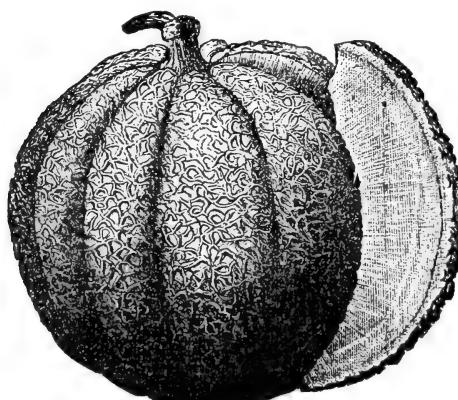
BROWN DUTCH.--Leaves large, green, tinged with brown; very hardy, and of fine quality.

MELON (Canteloupe.)

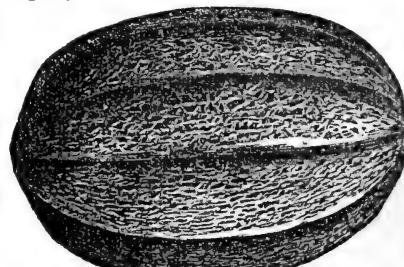
Plant early in May, when the ground has become warm and dry, in hills six feet apart each way; use well rotted manure, and if plants grow very rank, finer fruit will be secured by trimming off the ends of the shoots when about three feet long. Do not plant near pumpkins, squashes or cucumbers, as they will mix with and injure the quality of the melons.

GOLDEN JENNY.--Small, and very early; globe-shaped, skin green, ribbed and netted, flesh light green and of fine flavor.

JENNY LIND.--The earliest green fleshed melon, and the sweetest variety in cultivation; flesh green, quite small, slightly ribbed and well netted.



Hockensack.



Bay View.

PINE APPLE.--Very fine, nutmeg shape, flesh thick and green, very firm, juicy and sweet.

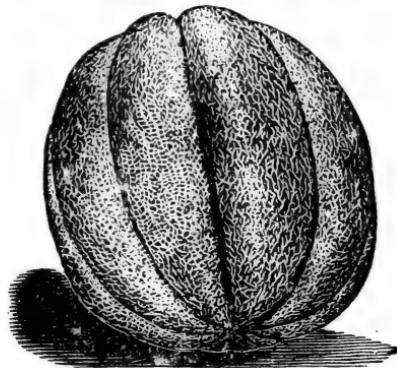
GREEN NETTED--The old favorite, nearly round, good sized, well netted, flesh thick sweet, and fine flavor.

JENNY LIND IMPROVED.—Resembles the old variety on'y that it produces earlier and is better filled out, roughing up better, and keeping fully a week longer than any other variety. Is of a handsome green fleshed sort and invaluable for a first early; and of a delicious quality.

HACKENSACK.—A popular large size melon, flattened at the poles, deep netted and ribbed flesh green and well flavored. One of the best for shipping, and is a favorite with market gardeners.



Green Netted Melon.

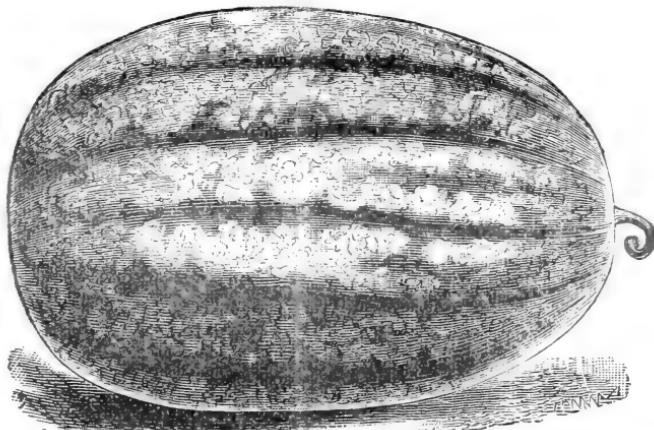


Montreal Citron.

CASABA—One of the best in cultivation; flesh green, sweet, melting and delicious.

MELON (Water.)

The Water Melon succeeds best on light, sandy soil, but the young plant requires a good start, and for this should have hills of rich earth, made so with well rotted manure.



Cuban Queen.

MOUNTAIN SWEET.—The old New Jersey variety, equal to the best.

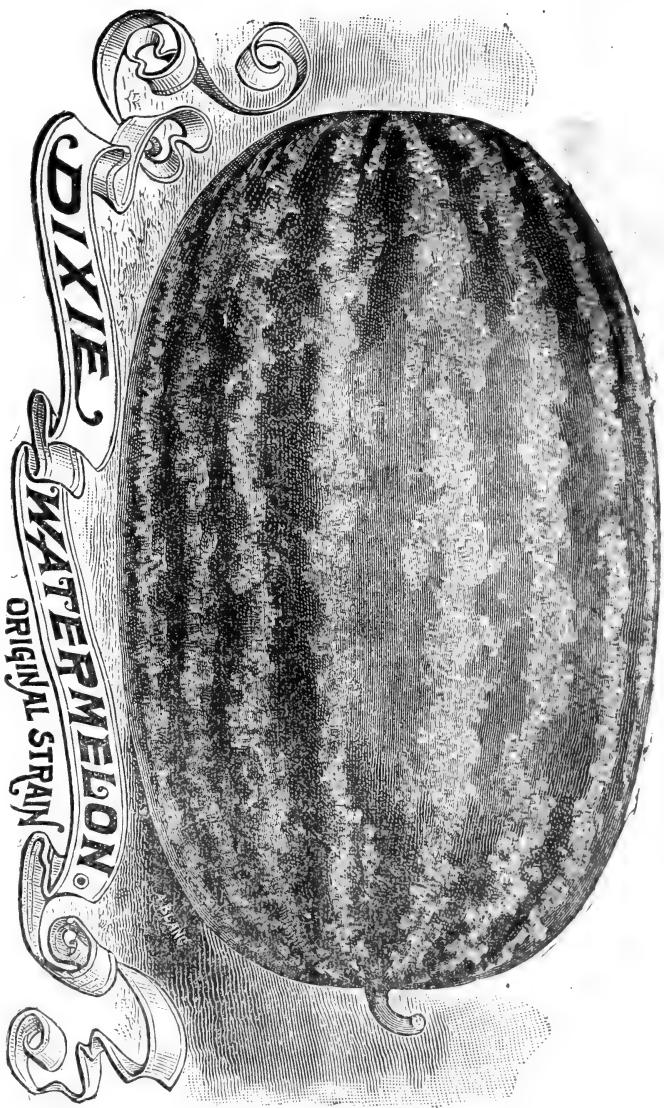
Mountain Sprout.—Large oblong variety, gray seed, dark green skin, red flesh and good quality.

Black Spanish—Large round, dark green skin, flesh red, sweet and delicious, a first class market variety.

CUBAN QUEEN.—One of the largest melons known; vine vigorous, skin striped, light and dark green; rind medium thick, flesh bright red, solid, crisp and sugary.



Ice Cream. (See next page.)

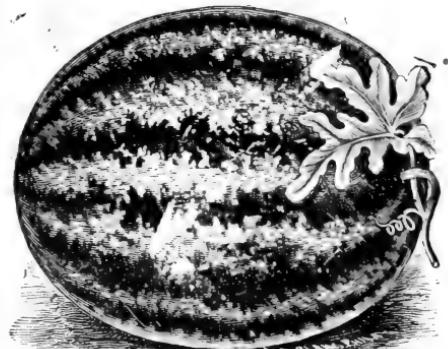


Dixie Watermelon—Destined to supersede the Gem. If you want the best melon grown plant the Dixie. It is unsurpassed in fine eating qualities. Form long to half long, diameter large; rind dark with lighter stripes. Early as the Gem, equally productive. Flesh deep red; unequalled as a shipper. We have had seed grown especially for our trade of the best stock. For price see our price list.

Gypsy or Rattlesnake.—One of the large varieties, stands shipments long distances better than any other. Fruit long, smooth, distinctly striped and mottled light and dark green.

Ice Cream.—Medium size, scarlet flesh and very sweet; an excellent variety.

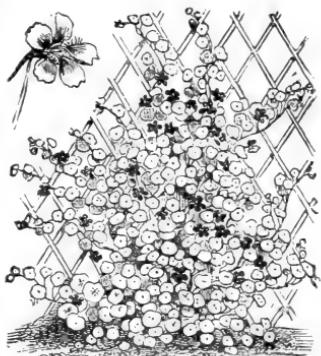
Orange.—Small size, flesh red, tender and sweet, separates from the rind like an orange.



Kolb's Gem.

White English.—This is the kind usually preferred for salad. The leaves are light green, mild and tender when young; seed light yellow.

Brown Italian.—This is a larger plant than the preceding, with much darker leaves; seed brown and more pungent.



Nasturtium.

A strong, deep soil is desirable for this crop. The ground should be dressed with well rotted manure.

The Silver skin and Yellow Strasburg are principally grown (for sets) in this vicinity, Sow the seed early in the Spring, very thickly in beds or drills. As soon as the tops die off in the Summer, remove them to a dry, airy place, and early in the following Spring replant in rows about two inches apart, the rows wide enough apart to admit of hoeing. The Onions by this process, are obtained of a large size early in the season.

The Large Red Wethersfield may be reared to full size during the first season, by sowing in drills early in March, in strong land, and thinning them out to stand two or three inches apart, keeping them well hoed.

The Boss.—New, handsome oblong variety, skin very dark, deep scarlet flesh, sugary and of excellent flavor.

Light Icing.—Very light green skins flesh bright red, crisp and sugary, excellent quality.

Dark Icing.—Skin dark green; in other respects like the preceding melon.

Kolb's Gem.—A new introduction. Has a hard rind and is a good shipper. Shape nearly round. Flesh red and of good quality.

MUSTARD

Mustard is not only used as a condiment, but the green leaves are used as a salad, or cut and boiled like spinach.

NASTURTIUM

Used as a pickle and highly esteemed. Sow in drills two inches deep, in April and May, five or six inches apart, and provide them with rods. It may also be grown to advantage as an ornamental climbing plant.

OKRA, OR COMBO

The green capsules of this plant are used in soups, stews, etc., to which they impart a rich flavor, and are considered nutritious. Plant the seeds about the middle of May, in hills or drills. Plant the seeds thickly, as it is liable to rot in the ground; rich ground is necessary.

Tall White.—About four feet high; pods eight to ten inches long.

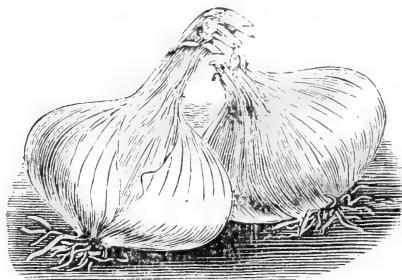
Dwarf White.—Two and a half feet high; pods five inches long; very productive.

ONION

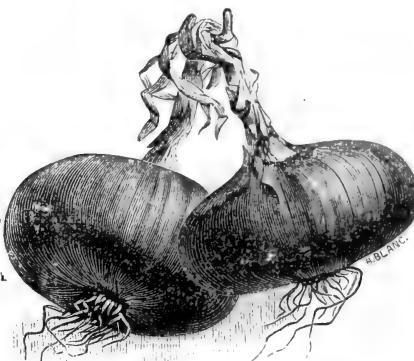
A strong, deep soil is desirable for this crop. The ground should be dressed with well rotted manure.

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White Portugal.



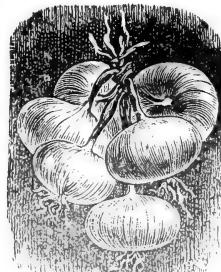
Early Red Onion.

Extra Early Red.--A large yielder, of good form and flavor, deep red color, and keeps well. Ten days earlier than the Wethersfield.

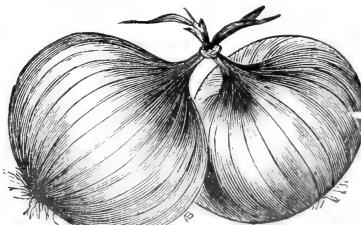
Large Red Wethersfield.--The standard Eastern variety. Grows to large size directly from the seed; skin deep purplish red; form round, flat; flesh purplish white; and stronger flavored than any of the other kinds.

Yellow Strasburg.--The old popular Philadelphia variety; not as strong flavored as the Red; a first rate keeper, and valuable for shipping.

Yellow Danvers.--A fine variety, originating in Danvers, Mass.; above the medium size, oval shaped; skin yellowish brown; flesh white, mild and well flavored, very productive



Queen



Yellow Danvers.

Silver Skin or White Portugal.--Large flat Onion, of mild flavor; fine for early winter use, and very desirable for pickling. It is the best keeper of the white varieties.

Queen.--A silver skinned variety, of mild flavor, early, a good keeper, and an excellent pickling Onion.

ONION SETS

The Onion sets grown in the vicinity of Philadelphia are recognized everywhere as the best in the country; they are more solid and brighter, and their keeping qualities much better than those grown elsewhere. The best varieties are the *Early Red*, *Yellow Strasburg*, *Yellow Danvers* and *White Silver Skin*. Onions grown from sets come into market long before those grown directly from the seeds, and in consequence much higher prices are realized from them.

PARSNIPS

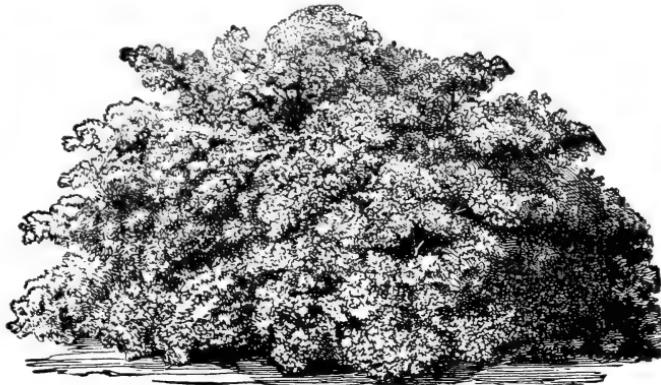
This well known culinary vegetable does best on a deep, rich, sandy soil; fresh manure should not be used, as it is apt to make the roots coarse and ill-shaped. The seed is sometimes slow to germinate; it should be sown early as possible, covering half an inch deep, and the soil pressed firmly over the seed; thin out so that the plants will stand four inches apart.

Long White Dutch.--Very hardy, and keeps through the Winter without protection

Sugar or Hollow Crowned.--The very best for table use, very productive.



Hollow Crown.



Champion Moss Curled Parsley.

PARSLEY

Sow early in April in rows. Soak the seed a few hours in warm water before sowing, or it may lay two or three weeks in the ground before vegetating. A few Radish Seed mixed with the seed when sowing will mark the rows and facilitate weeding.

PLAIN OR SINGLE—Dark green color, and very hardy.

DOUBLE CURLED—A dwarf curled variety, which is the best for all purposes.

MOSS CURLED—Leaves bright green, curled and crested like fern or moss, very ornamental for garnishing or garden decoration.



PEAS

The Pea is so generally known that it is needless to give any description of it. There are many new varieties coming out every year, most of which turn out to be no better than the older sorts. We have carefully culled them over, and our list will be found to contain all that are really valuable.

The Pea matures earliest in a light, rich soil; but for general crop, a rich, deep loam will be found best. The Extra Early varieties should be sown as soon as the ground can be worked in the Spring, and continue every two weeks for a succession. The tall varieties require brush stuck in between rows. The wrinkled varieties are superior, more delicate in flavor, and remain longer in season than the smooth sorts, but are not so hardy.

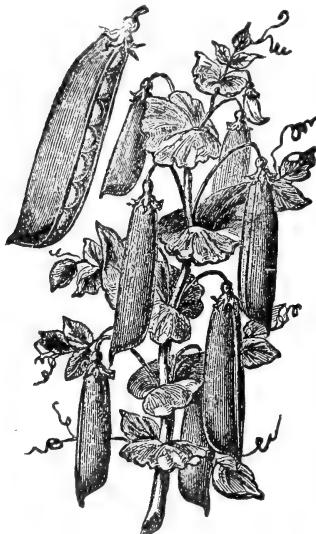
The dwarf varieties suit best for small gardens, and can be planted in rows one foot apart.

IMPROVED PREMIER EXTRA EARLY PEA.—This is undoubtedly the best and earliest Pea grown.

CLEVELAND'S ALASKA, (New.)—See cut on page 41.

CLEVELAND'S RURAL NEW YORKER, (New.)

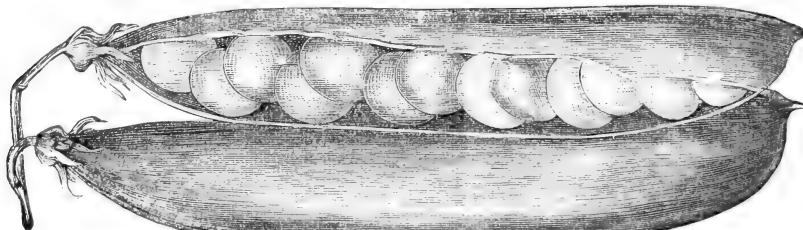
MINGLE'S EXTRA EARLY.—For family use this is probably equal to the Improved Premier; it does not ripen so evenly, but keeps in bearing longer.



Improved Premier

EARLY KENT.—An old early variety, ripening about a week later than the Extra Early height three feet.

SHARPS QUEEN.—One of the most desirable of the late varieties that have been recently introduced. Being of a vigorous branching habit it needs to be sown thinly. Pods long, slightly curved and well filled, Height $2\frac{1}{2}$ feet, seed dark green and wrinkled.



Telephone

TELEPHONE.—One of the recent introductions from England, where it is highly prized grows about three feet high, and is the best tall Pea in existence, an enormous bearer, producing straight, showy pods, containing from nine to ten peas in a pod.



AMERICAN WONDER



Premium Gem.

LONG ISLAND MAMMOTH.—Very popular with the farmer in most sections who want a large handsome pod of deep green color that carries well. Is becoming more popular every year. Height 3 feet.



Champion of England Peas.

YORKSHIRE HERO.—Vines stout, about two feet high, pods broad and well filled, large Peas; hardy, productive, and superior flavor, and will be preferred to any other, by those who want a rich marrow-like Pea.

MARKET GARDEN.—An old favorite, of delicious flavor; ripens in sixty to sixty-five days, foliage dark, and continues long in bearing, a universal favorite.

DWARF CHAMPION.—Very much liked by those who have tried it. In quality and flavor equal to Champion of England, and the vine much more dwarf. Equal to Little Gem, except that it is ten days later.

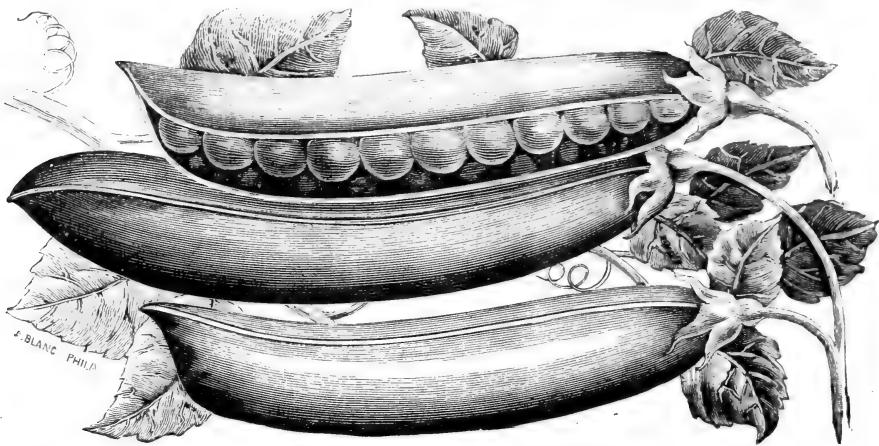
CHAMPION OF ENGLAND.—Universally admitted to be one of the richest and best flavored Peas grown; height four to five feet; seed whitish green and shriveled, and a profuse bearer.

FORTY FOLD.—A very fine Pea, grows about the same height as Champion, very superior quality, and very productive.

STRATAGEM.—New late green wrinkled marrow variety, growth one and a half feet high great bearer and of excellent quality. *See Cut next page.*

LARGE BLUE IMPERIAL. About three feet high, pods long, rather flat, containing eight or nine Peas, a good bearer, and one of the best varieties for summer use.

IRISH DWARF WHITE MARROW FAT.—Similar in appearance and general character to the Large White Marrowfat, but of much dwarfer growth, being only about three feet high, it requires no brush, and is much earlier than the Tall Marrowfat; as a late market Pea it has no equal.



Stratagem Peas—See page 43.

Large White Marrowfat.—About five feet high, and of strong growth; pods large, round and well filled; is undoubtedly, one of the greatest bearers in field or garden.

Large Black-Eyed Marrowfat.--A late variety, well known on the Philadelphia market as a prolific bearer, and is recommended as one of the very best Marrowfat varieties.

Field Sorts.—We keep in stock all the varieties used for soiling or ploughing in as green manures; a practice which is becoming quite general in this latitude.

PEPPER

Sow in hot beds in March, or in a warm border early in May, transplant and thin out to stand sixteen or eighteen inches apart; hoe frequently, to keep down the weeds.

Large Sweet Bell or Bull-Nose.--A large sort, of square form, mild, thick and hard; suitable for filling with cabbage, and for a mixed pickle. It is notwithstanding its size, one of the earliest varieties.

Tomato or Squash—Fruit flat, shaped like the Tomato.

Long Red Cayenne.--Pod long, slim and pointed; color, bright red and very pungent.

Sweet Mountain.--Nearly identical with the Bull-Nose; perhaps somewhat larger.

Long Red Cayenne.

PUMPKIN

Sow in hills eight or ten feet apart each way, or in fields of corn, about every fourth hill; avoid planting near melon or squash vines, as they will hybridize.

Sweet Potato.—Flesh yellow and dry, the very best for family use.

Cashaww.—Long Yellow Crook Neck, one of the best among Pumpkins; sometimes weigh as much as sixty to eighty pounds.

Cheese.—One of the best for table use; shape flat, like a cheese box; flesh yellow and sweet.

Common Field.—Best for cattle feeding.

POTATO

EARLY VERMONT,

EARLY ROSE,

EARLY SUNRISE,

BURBANK SEEDING,

DAKOTA RED,

WHITE PEACH BLOW,

BEAUTY OF HEBRON,

MAGNUM BONUM,

SNOW FLAKE,

WHITE STAR,

MAMMOTH PEARL,

WHITE ELEPHANT.

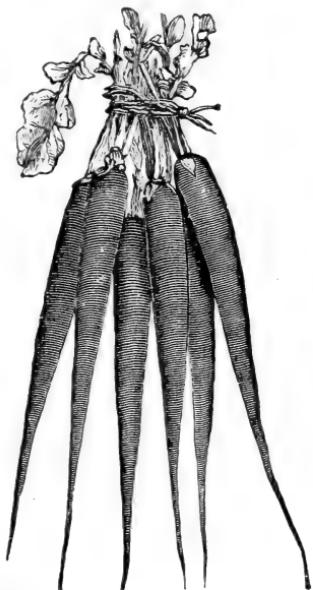
The soil best suited to the Potato is a rich sandy loam, but it seems to thrive in almost any soil and climate. The best fertilizers are plaster, super-phosphate of lime and bone-dust. Plant as early in the spring as the ground can be worked thoroughly, covering about four inches in warm soil, and in wet soil three inches deep, cultivate to keep down weeds, and draw earth to the plants as they advance in growth.

There are many so called new varieties offered every season, but they disappear quickly. There is really none to be found better than the Early Rose, Snow Flake, and White Peach Blow.

RADISH

Should be sown in a warm, sandy, loam, enriched by well rotted manure, and a liberal dressing of salt, this will have the effect of making them brittle and free from worms. Sow as early as the ground can be worked, and thin to two inches apart as soon as the rough leaves appear.

Radishes must have plenty of room and be grown quickly, otherwise they will be tough and wormy.



Early Long Scarlet Short Top (improved).



Early Scarlet Turnip.

EARLY LONG SCARLET SHORT TOP (*improved*).—The best standard variety for private gardens or market use, is brittle and crisp, and of quick growth; color bright scarlet, small top, and is uniformly straight and smooth.

EARLY SCARLET TURNIP—The earliest of the Turnips varieties; small root and small top.

White Tipped Scarlet Turnip.—Fine French variety; scarlet bulb with white tip, very showy and ornamental.

Early Red Turnip Rooted.—This is the old favorite, and there are few that are better. (*See Cut.*)

Early Deep Scarlet Turnip Rooted.—An improvement on the former very smooth and rich dark color.

Early White Turnip Rooted.—Like the preceding in shape, but pure white in color; bears the heat well without becoming spongy, a few days later than the former.

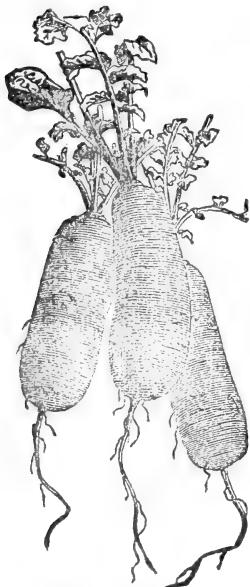
EARLY SCARLET OLIVE-SHAPED—In form of an olive; fresh rose colored, tender and excellent.

EARLY YELLOW SUMMER TURNIP.—Oblong, turnip shaped and russet colored, much larger than the Red and White Turnip varieties; solid and brittle, and stands heat better than any other kind.

GOLDEN GLOBE.—A fine French variety, amber colored, mild flavor, and keeps long in eating condition.

SCARLET CHINA WINTER—Form conical, of a bright rose color, flesh firm and pungent flavor.

WHITE CHINA WINTER.—Similar in shape to the preceding, flesh piquant, solid and brittle; an excellent sort for late Fall or Winter use.



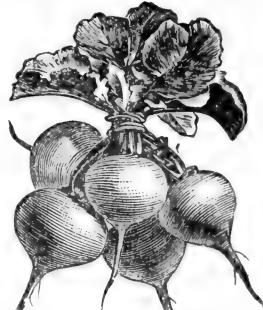
Winter China (Page 45.)

Long Black Spanish Winter.—One of the latest as well as one of the hardiest of Radishes, and is one of the best for Winter use; roots oblong, black, of large size and firm texture.

LARGE WHITE SPANISH WINTER. Differing from the Black Spanish only in color.

RAPE.

Extensively cultivated in England for the seed, from which is manufactured Rape Seed Oil. As a forage plant it yields abundantly; fed green it is eaten by nearly all animals, and is very nutritious. Sow in May ten pounds broadcast, and in drills four pounds per acre.



Early Red Turnip (Page 45.)

Rhubarb or Pie Plant.

It is cultivated in gardens for its leaf stalks; used for pies and tarts, it is fit for use before green fruit can be had, and is an excellent substitute. Sow seed in the seed bed early in Spring, and transplant in Autumn or ensuing Spring to any desired situation, allowing plants three feet square space.

Salsify or Vegetable Oyster.

Sow early in the Spring, in deeply dug and richly manured soil, in drills eighteen inches apart. Keep clear of weeds, and when up a few inches, thin out, so as to stand four or five inches apart. This is a hardy vegetable and can remain in the ground all Winter for early Spring use, but should be taken out before they start growing. It is excellent for the table, and can be served as Carrots, or, after being parboiled, may be made into cakes and fried like oysters, which they greatly resemble in flavor.

SPINACH.

The Spinach is very hardy, wholesome and palatable, and make a delicious dish of greens. Should be planted in rich ground. Sow in drills one foot apart, and commence thinning out when the leaves are an inch wide. For early spring use, the seed should be sown middle of Autumn, and will require through the Winter a slight protection of leaves or straw. For Spring and early Summer use, sow as early as the ground can be tilled, and at short intervals, if a succession is desired.

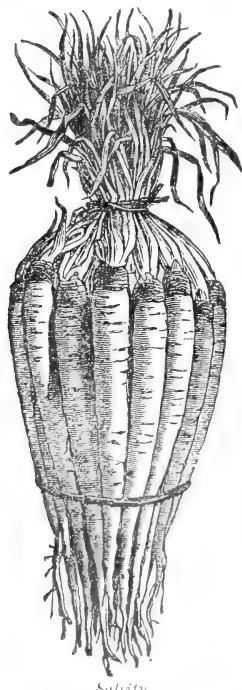
ROUND LEAVED SUMMER.—(*Extra Curled.*)—This variety is the best and most popular with our market gardeners; leaves large, thick and fleshy, and stands the Winter well.

LARGE LEAVED FLANDERS.—Has a very erect habit of growth, and preferred by many on that account.

PRICKLY SEEDED.—The hardiest variety, and will withstand the severest weather, with only a slight protection of leaves or straw; seed is prickly, leaves oblong and triangular. It is the best for Fall sowing.

LONG STANDING.—New large crimped fleshy leaved variety; stands two weeks longer than any other variety before running to seed. Best kind for seed sowing.

MONSTROUS VIROFLAY.—A mammoth variety of good quality, much used in Europe



Salsify

SQUASH

Cultivate same as Cucumbers or Melons. The summer varieties should be planted four or six feet apart each way, and the Winter sorts eight feet. Three plants are sufficient for a hill.



Hubbard.

EARLY WHITE BUSH, OR PATTY PAN.—The earliest in maturing, and very productive.

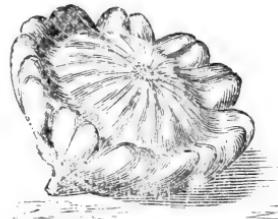
EARLY GOLDEN SCOLLOP Bush.—Like the preceding, except being of a golden color

GOLDEN SUMMER CROOK-NECK.—The best of the Summer squashes, gold color, profusely covered with warty excrescences; very superior flavor.

WINTER CROOK NECK,—Shape like a Cashaw pumpkin, grown for Winter use; is a good keeper.

BOSTON MARROW.—A Fall and Winter variety, very popular, oval form, thin skin; when ripe, bright orange color, fine grained, and for sweetness unsurpassed.

HUBBARD.—A very superior variety, flesh bright orange yellow; dry, sweet and rich flavored, good keeper, boils or bakes exceedingly dry.



Early White Bush, or Patty Pan.



Golden Summer Crook-Neck Squash.

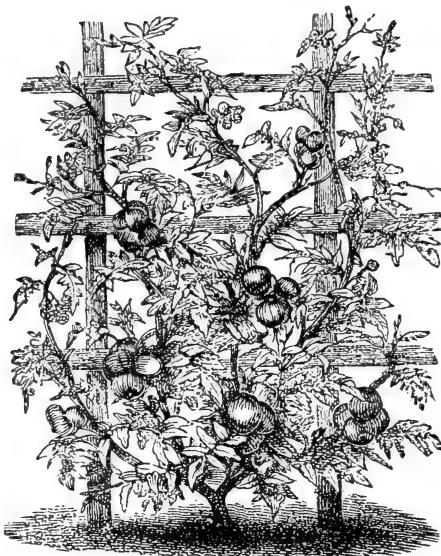
WHITE PINAPPLE SQUASH.—A superb variety for pies; it cannot be excelled.

AMERICAN TURBAN.—Flesh orange yellow, good flavor and excellent for Fall and Winter use.

TOMATO

Tomatoes do best on light, warm, not over rich soil, and success depends upon securing a rapid, vigorous, unchecked growth during the early part of the season. To have them very early the plants should be started in a hot-bed; transplant carefully, and cultivate well as long as the vines will permit. Tying to a trellis or stakes, improves the quality.

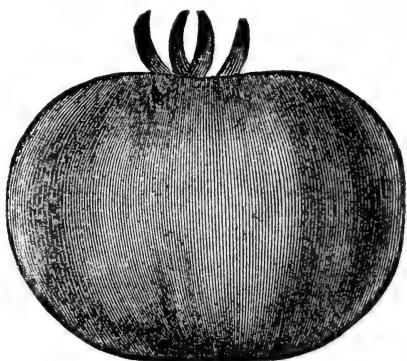
EXTRA EARLY. (*or Cluster*). — The earliest variety, and desirable only on that account.



Early Tomato.

Extra Early Richmond.—Almost as early as the Early Cluster, larger and smoother, it is a favorite among truckers, and is a good shipper.

Hathaways' Excelsior.—Quite early, vigorous growth, vines large, and productive throughout the season. Fruit dark rich color, slightly below medium size, but always round and smooth.



Paragon

ACME.—One of the most popular varieties; vines large, and produce abundantly until frost. Fruit in clusters, color maroon or reddish, with slight tinge of purple, invariably smooth and round, of good size and unusually solid, is a good shipper.

PARAGON.—Vines large, liberal and productive; fruit large, round, of a dark crimson color, occasionally tinged with purple. The flesh is thick and fine flavored, and taken altogether, it is the best variety yet produced.

LIVINGSTON'S PERFECTION.—A handsome new Tomato, so nearly identical with the preceding as to be interchangeable with it.

TILDEN.—A well known and favorite variety, rich color, solid flesh, and desirable in every way.

LIVINGSTON'S FAVORITE.—This is the most perfect shaped Tomato in cultivation, is smoother than the Paragon, and does not crack or rot like the Acme. It ripens evenly, and as early as any good variety; very prolific, good flavor, few seeds, solid, and a good shipper.

TROPHY.—Well known as one of the best; vines of medium size, but producing large quantities of fruit, which is large, smooth, and bright red in color.

LARGE RED.—An old, reliable variety, resembling the Tilden.

LIVINGSTON'S BEAUTY.—The very latest production of Mr. Livingston, and claimed to be the best; color a bright glossy crimson, slightly tinged with purple, grows in clusters of four or five large fruits, and retains its size until late in the season, and will average more pounds of fruit to the acre than any other variety.

COOK'S FAVORITE.—A solid, nearly round Tomato, very desirable, and almost identical with the "Canada Victor."

FEJEE IMPROVED.—One of the best; color maroon, solid flesh, very productive, and known as the Beefsteak Tomato.

PEAR SHAPED—*Yellow and Red.* Used for preserves and pickles; is extraordinarily productive.

TURNIP

Early Purple Top Munich.—A handsome early Turnip, decidedly earlier than any other sort ; color white with bright purplish red top ; of fine quality when young and recommended as the very best for a first crop.



Early Purple Top Munich.

Early Flat Dutch (*Strap Leaved*).—This is the most popular early Turnip for table use ; very early, sweet and tender, and sure to bulb.

Early Purple Top (*Strap Leaved*).—Very similar to the preceding except in color, being purple or dark red on top ; form round, flat, with but few leaves, which are of upright growth. This is the standard variety, and there is none better for general purposes.

Large Early Red Top Globe.—Only recently introduced ; very attractive, of large size and rapid growth. It is a very heavy producer, and quite as early as the Flat Red Top.

Early White Egg.—A recently introduced variety ; color pure white, egg-shaped, of very rapid growth, and of good quality.

Pomeranian White Globe (*Strap Leaved*).—A free-growing, rough-leaved variety, and very productive ; will, frequently, in good rich soil grow to ten or twelve pounds in weight ; it is a perfect globe in shape, skin white and smooth. A first rate kind for either table use or stock.

White Norfolk.—One of the standard field sorts ; and is extensively grown everywhere for stock feeding. In shape, round, color white, and often grows to large size. It is an admirable keeper.



Early Purple Top—Strap Leaved.



Improved American Ruta Baga.

Cow Horn.—This variety is carrot-shape, and grows nearly half out of the ground ; is pure white, except slight shade of green at top. It is well flavored, of rapid growth, and seems to be increasing in favor every year.

Amber Globe (*Strap-Leaved*).—This is one of the best of the rough leaved sorts, for either table use or for stock ; flesh yellow, fine grained and sweet ; hardy, keeps well, is a good cropper, and grows to a very large size.

Yellow Aberdeen.—This is a very nutritious cattle turnip ; flesh pale yellow, tender and sugary ; is a good keeper, ardy and productive. It is an old favorite, and for stock purposes hard to beat.

Robertson's Golden Ball (Orange Jelly).—One of the most delicate and sweetest yellow flesh Turnips yet introduced; does not attain a very large size, but is firm and of excellent flavor. Has no superior as a table variety.

Improved Purple Top Yellow Swede (*Ruta Baga*).—This is the standard and most important now cultivated for stock purposes; noted for rapid growth, large size and nutritious quality, and cannot be too highly recommended.

White Fleshed Purple Top Ruta Baga.—This differs mainly from the preceding in color; possesses most of the good qualities of the yellow, but is of slightly milder flavor. is not as valuable for stock as the yellow.

The above comprise about all the desirable varieties for either table or stock use. There are several others which differ from each other more in name than in anything else, being in most instances identical in their characteristics. We have not noted them here, but any varieties not named, which our customers may desire, we will cheerfully procure, and at such prices as will compare with any other Catalogue.

CLOVER AND GRASS SEEDS

There are no plants so valuable for fertilizers as the clovers, and as a class they include some of the best forage plants. The common clover is the natural manure of the Northern farmer, and it is the cheapest and best renovator of worn soils. Its full value on poor land is best obtained by securing the first crop for hay, and ploughing under the second crop when in seed in September. The cutting of the growing plants causes the development of a large amount of roots, which extract from the soil large amounts of mineral constituents, which, by the decay of the roots, greatly increase the fertility of the soil; the long roots extend far into the earth, and when they decay leave channels through it for the admission of air and distribution of water. Soils best adapted to clovers are clays and heavy loams, and on such soils lime is the best clover manure. They also do well on soils of lighter character, and when ploughed under as a green manure, add greatly to their fertility. The seed may be sown in Fall or Spring; but in the Eastern and Middle States the best results are usually had from Spring sowing; it should be sown early on a mellow, well prepared soil; plaster will increase the growth remarkably, and should be sown broadcast the season following the seeding.

CRIMSON CLOVER

Crimson Clover.—Or more commonly called Scarlet, Italian or German Clover, is an annual of French origin, makes a growth from 20 to 30 inches high, has a bright crimson blossom from $1\frac{1}{2}$ to 3 inches long, and when in full bloom with its luxuriant growth of green foliage and its crimson bloom, is a thing of beauty. It is a winter crop, must be sown in July, August and September of each year from which the spring following can be cut for soiling, by the 20th, of April; for Ensilage and hay by the 8th of May, and for seed crop by the 25th of May. It will produce on ordinary soil 12 to 15 tons of green food per acre, $1\frac{1}{2}$ to $2\frac{1}{2}$ tons hay per acre, and 2 to 12 bushels seed per acre. Ploughed under as a manurial crop it is worth as a fertilizer \$30. per acre. Experiments at the Delaware Experiment Station, have shown that \$1 invested in seed per acre added 24 bushels corn. While \$1 worth of nitride soda per acre increased the yield of corn only 6 bushels.

Professor Voorhees, Director of the New Jersey Experimental Station, says, on page 21 of station bulletin no. 100: The average of the matured crops on May 24th and 31st contained per acre 200 lbs. nitrogen and 6,500 pounds of organic matter, or equivalent to that contained in 20 tons of city manure, which would cost in that form \$30. On page 29 of the same bulletin Professor Voorhees says: Used as a manure only the average crop per acre is worth \$25, when used as a feed the value is increased to \$40. This plant provides a good pasture before other crops are available. An early pasture is not only valuable for food contained in it, but also because it helps to insure proper feeding and to prevent too early use of other and later pasture. The crop when 6 inches high contained over 1,300 pounds of digestible food per acre, sufficient to properly nourish 12 cows for one week. When sown in July and August it furnishes excellent pasture in December, can also be pastured some in early spring without injury to either hay or seed crop. When Red Clover failed to give a good stand or blighted on wheat stubble, the stubble can be harrowed over and Crimson Clover sown, which will more than make up the loss of the Red Clover. Crimson Clover weighs sixty pounds to the bushel. Ten to fifteen pounds are necessary to seed an acre properly, and after sowing the seed it should be covered by harrowing with a light harrow. Professor Voorhees and other experimentors of high authority regard it as hardy as red clover. It withstood the winter at the Maine experimental station and attained a growth of 26 inches. Good results have been obtained in Northern New York. Crimson Clover will grow on poor light soils when other grasses fail. By its use poor soils can be improved more rapidly than by any other method. Therefore, it is the cheapest and best fertilizer.

It makes an abundant food of highest quality. As pasture, stock prefer it to other grass. As a soiling crop or for Rusilage it cannot be excelled, and for hay stock not only have a decided preference for it, but they thrive remarkably upon it.

The Delaware Experimental Station sums up its uses as follows:—

1. To Plow down for Green Manure.
2. For Silage.
3. For Soiling.
4. For Haymaking.
5. For Seed Production.
6. For Eradication of Weed.
7. For Reduction of Expenses in Cultivating Orchards.
8. For Winter and Spring Pasture.
9. As a Protection for Falling Fruit in Orchards.
10. For Binding drift Soils and for preventing Washing on Hill Sides.

We make Crimson Clover a specialty and we are prepared to furnish it in large or small quantities. We have in stock choice recleaned seed. Prime seed and No. 2 seed which we furnish at market prices.

MAMMOTH OR LARGE RED.—This variety is best adapted for ploughing under as a green manure; it grows five to six feet high, has large, coarse stalks, which are not liked by cattle. It is not ready to cut for hay until long after the common variety, and when cut leaves the ground bare, making no second growth. Sow at the rate of about ten pounds per acre.

MEDIUM OR COMMON RED.—This is the most important of all the varieties of Clover for practical farm purposes; it makes excellent pasturage when sown with Timothy and other grasses, and is one of the best fodders for milch cows or sheep: sow at the rate of ten to fifteen pounds per acre, according to nature of the soil.

ALSIKE OR SWEDISH.—This is the most hardy of all the Clovers, it resists the severest cold, and extremes of drought and wet, yields large crops of superior hay, and on rich soils may be cut several times in a season; it is perennial, and its long, strong fibrous roots take a firm, deep hold on the soil, preventing washing away of the extra earth from hillsides. It produces superior pasturage, and is much liked by cattle; grows well on any soil; stalks are fine and palatable, blossoms globular, sweet and fragrant, and much liked by bees. Sow in Spring or Fall, at rate of about six pounds per acre.

CRIMSON TREFOIL (*Scarlet Italian.*)—Grows about one foot high, with fine stems and long leaves. Blossoms are long, cone shaped, of a dark red or carmine color, grows rapidly, but being an annual, must be re-sown each season; it yields several crops per year, and makes excellent hay. Sow about ten pounds per acre in Spring.

WHITE DUTCH.—A small, low growing variety, with creeping stems; mixed with Blue grass or Perennial Rye Grass, or Timothy, it makes a permanent pasture of great value. Its blossoms are round, white, tinged with red, and sweet scented; stems fine and palatable, with numerous leaves of bright green color, blotched with white. Sow about six pounds per acre.

TIMOTHY.—This crop to cut for hay, probably surpasses any other grass in cultivation it thrives best on moist, loamy soils, and is not well suited to light, sandy or gravelly soils it should be cut just when the blossom falls. Sow either in Spring or Fall, at the rate of twelve pounds per acre, if alone, but less if mixed with other grasses.

Orchard Grass.—This is one of the most valuable grasses, on account of its quick growth and valuable aftermath. It is ready for pasture in Spring two weeks earlier than most grasses, and when fed off, is again ready for grazing in a week. It is palatable and nutritious, and stock eat it readily when green; it will also withstand severe drought keeping green where many grasses wither, and will endure considerable shade. When sown with Clover it makes excellent hay, as it blossoms at the same time, and they should be cut together; for grazing it has no equal, and should be used more than it is; it has a tendency to grow in tufts, which can be prevented by close cropping and heavy seeding. When sown alone, one and a half to two bushels per acre are required; if sown with clover, half that quantity. It is a perennial, and will last for years, but its habit of growth unfit it for lawns.

Red Top or Herds Grass.—Is a good permanent grass, and makes a good pasture when fed close; is valuable for low, wet meadows, producing large crops of good hay. It is often sown with Timothy and Red Clover, in which case it makes a close sward.

Kentucky Blue Grass.—This makes an excellent pasture grass, producing a most nourishing food for cattle, retaining its qualities till a late period in Winter, and further South affording abundant food during the Winter. In connection with White Clover it affords a fine and close lawn: for this purpose an extra quantity of seed must be used, say, two bushels Blue Grass and six pounds of White Clover per acre. If sown by itself, either in Spring or Fall, two bushels per acre are required.

Natural Green Grass.—This is the grass par excellence for lawns, making a fine close surface of dark green velvety color. It is very sensitive to good treatment, and will in most cases drive out the other grasses and take possession of the soil. Should be sown not less than two bushels per acre.

Perennial Rye Grass.—A very valuable variety for permanent pasture, and makes a large return of hay; it is very nutritious, and stock are very fond of it; succeeds best on moderately moist land, for which it is peculiarly adapted. It is also largely used for lawns, in conjunction with other grasses. Should be sown in the Spring in quantities of one and a half to two bushels per acre.

Sweet Vernal Grass.—An early and exceedingly fragrant variety, and on that account invaluable for Lawn Grass mixtures, presenting a beautiful appearance, and exhaling a delightful odor when in blossom.

Fine Mixed Lawn Grass.—For fine lawns, careful preparation of the ground, with thorough rolling, are absolutely necessary, following which a selection of the seeds of such grasses as will present a luxuriant verdure from early spring till late in Autumn. There should also be frequent mowings with a lawn mower; no matter how much care has been taken with soil and seed, no lawn will be beautiful without frequent mowing and rolling. Too much care cannot be bestowed on the selection of grasses, these we can supply ready mixed, in proper portions of each kind required. We have been exceedingly successful with our mixture, and refer to the many fine lawns around Philadelphia, which have been put down with our mixture. Should be sown two to three bushels per acre.

Millet.—By reason of its being an open-fertilized plant millet is very much mixed, and varieties are not at all likely to come true. Consequently when Golden millet is purchased it is quite likely to contain some plants of Hungarian or other members of the millet family. Instead of sticking closely to names, it is better to distinguish between the millets in order of their size. The Hungarian and the common are the smallest and finest leaved; the Golden and German are medium sized, and grow more coarsely than the former, especially if planted thinly. Broomcorn and Hog millet come in an entirely different class and belong to a different order of plants. They are usually raised only for the seed for feed purposes.

Common Millet.—Requires a dry, light, rich soil, and grows two and a half to four feet high, with a fine bulk of stalks and leaves, and is excellent for forage. Can be sown in drills or broadcast, from May 1st until last of July. For hay sow one bushel; if for seed one-half bushel per acre.

German, or Golden Millet.—A much improved variety, medium early, growing three to five feet high; the heads are closely condensed, though the spikes are very numerous. It is an enormous cropper; should be sown not less than one bushel per acre, if less will grow coarse and woody, in which state it is not relished by cattle.

Hungarian Grass.—This belongs to the millet family, growing less rank, with small stalks often yielding two to three tons of hay per acre; like millet it is an annual, and requires, to be sown every season, but will produce a larger return than almost any other crop. Sow and cultivate like millet; all kinds of stock eat it with avidity.

For Hay.—Either sown together or separate, are unsurpassable both as to quantity and quality of hay.

German Millet, (and it must be remembered that Tennessee German Millet is the best in the world,) being sown and cultivated for seed and compared to seed grown elsewhere, the Tennessee grown is purer and better in every way.

After all danger of frost is past, break the land and thoroughly pulverize it, then sow at the rate of one to one and a quarter bushels per acre, and roll or harrow in, and cut when seed are in the dough; cure as timothy.

For Hay.—Either sown together or separate, are unsurpassable both as to quantity and quality of hay.

AROMATIC AND SWEET HERBS

ANISE,
BASIL, SWEET,
CARAWAY,
CORIANDER,

***FENNEL,**
***LAVENDER,**
MARIGOLD, POT,
MARJORUM, SWEET,

***ROSEMARY,**
***SAGE,**
***SAVORY, SUMMER,**
***SAVORY, WINTER,**
***THYME.**

Those marked with * are perennial, and when once obtained in the garden, may be preserved for years with a little attention. Most of the varieties thrive best on rich, sandy soil, which should be carefully prepared and cultivated, as the young plants are for the most part delicate and easily choked out by weeds. Sow as early as the ground can be made ready, in drills sixteen to eighteen inches apart, or sow in beds in April, and set plants out in June. They should be cut when in bloom, wilted in the sun, and then thoroughly dried in the shade.

PERMANENT GRASSES.

We also furnish single grasses, or several kinds in a mixture, for the production of hay or permanent pasture, to suit either heavy or light land.

MISCELLANEOUS FARM SEEDS.

Under this head we keep in stock all kinds of Spring and Winter Wheats, Rye, Common and Silver Hull Buckwheat, Oats, Field Peas, Spring Vetches and Tares, and all other seeds required for the farm.

BIRD SEEDS.

CANARY,

HEMP,

MILLET,

RAPE,

MAW,

LETTUCE.

And other articles required by the Bird Fancier.



PRICE LIST.

**LESS QUANTITIES THAN 1-4 lbs. and 1-4 BUSH. ARE CHARGED AT THE PRICES
PER OZ. AND QUART.**

While we exercise the greatest care to have all Seed pure and reliable, it is hereby mutually agreed that we are not in any respect liable or responsible for the seeds sold by us, either as to quality or kind, nor any loss or damage arising from any failure thereof in any respect.

WRITE US FOR FIRM PRICES.

ASPARAGUS.

| | oz. | lb. |
|---|----------|------|
| Conover's Colossal..... | \$ 10 | 50 |
| Barr's Mammoth..... | 10 | 50 |
| Palmetto, (new)..... | 10 | 50 |
| BEANS, (Bush, or Snap Shorts.) | QT. BUS. | |
| Early Mohawk..... | | 4 50 |
| Early Red Valentine..... | | 4 00 |
| Cleveland's Improved Round Pod Valentine..... | | 4 00 |
| Early Long Yellow Six Weeks... | | 4 25 |
| Early China Red Eye..... | | 4 00 |
| Refugee or Thousand to One..... | | 3 00 |
| Currie's Rust Proof Wax..... | | 4 50 |
| Dwarf German Wax..... | | 4 50 |
| Golden Wax..... | | 4 50 |
| Wardwell's Kidney Wax..... | | 5 00 |
| German Wax, (white seeded).... | | 4 00 |
| Crystal White Wax..... | | 4 00 |
| IvoryPod Wax..... | | 4 00 |
| White Seeded Valentine..... | | 5 00 |
| White Cranberry..... | | 3 25 |
| Royal Dwarf, White Kidney..... | | 3 25 |
| Large White Marrow..... | | 3 25 |
| Dwarf White Navy..... | | 3 25 |
| Henderson Bush Lima..... | | 3 25 |
| Burpee Bush Lima..... | | 6 00 |
| Dreers Bush Lima..... | | 6 00 |

BEANS, (Runners.)

| | | |
|---|----|------|
| Early Early Jersey Lima..... | 25 | 600 |
| Improved Extra Large Lima, (Salem Mammoth)..... | 25 | 6 00 |
| Dreer's improved Lima..... | 30 | 6 60 |
| Small White Lima or Carolina.... | 30 | 6 50 |
| Horticultural..... | 20 | 5 00 |
| Giant Wax, (Red Seed)..... | 20 | 6 00 |
| Tall German Wax,..... | 20 | 6 00 |

BEET.

| | oz. | lb. |
|--------------------------------|-----|-----|
| Extra Early Bassano..... | 10 | 60 |
| Early Egyptian Turnip..... | 10 | 60 |
| Eclipse..... | 10 | 60 |
| Early Blood Turnip..... | 10 | 60 |
| Bastian's Early Turnip..... | 10 | 60 |
| Half Long Blood..... | 10 | 60 |
| Improved Long Dark Blood..... | 10 | 60 |
| Swiss Chard..... | 10 | 60 |
| White Silesian Sugar..... | 10 | 40 |
| Imperial White Sugar | 10 | 40 |
| Giant Long Red Mangel Wurzel | 10 | 40 |
| Long Red Mangel Wurzel..... | 10 | 40 |
| Yellow Globe Mangel Wurzel... | 10 | 40 |
| Yellow Ovoid Mangel Wurzel ... | 10 | 40 |
| Red Globe Mangel Wurzel..... | 10 | 40 |
| Golden Tankard Mangel Wurzel | 10 | 40 |

BROCCOLI.

| | | |
|------------------------|----|------|
| Purple Cape | 20 | 2 50 |
| Early Large White..... | 20 | 2 50 |

BRUSSELS SPROUTS.

| | oz. | lb. |
|---------------------|-----|------------|
| Dwarf Improved..... | | \$ 15 1 50 |

CABBAGE.

| | oz. | lb. |
|--------------------------------|-----|------------|
| Large Early York..... | | \$ 15 1 50 |
| Early Jersey Wakefield... | | 20 2 00 |
| Early Winningstadt..... | | 15 1 50 |
| Early Cone..... | | 15 2 00 |
| Early Sugar Loaf..... | | 15 2 00 |
| Early Dwarf Flat Dutch..... | | 15 1 50 |
| Fottler's Early Drumhead..... | | 15 1 50 |
| Premium Large Late Flat Dutch. | | 15 1 50 |
| Premium Large Drumhead..... | | 15 1 50 |
| Improved Drumhead Savoy..... | | 15 2 00 |
| Red Dutch (for Pickling)..... | | 15 2 00 |

CARROT.

| | | |
|--|----|----|
| Earliest Short Horn..... | 10 | 75 |
| Early Scarlet Horn..... | 10 | 75 |
| Danvers..... | 10 | 75 |
| Early Half Long Scarlet, (Stump Root)..... | 10 | 75 |
| Improved Long Orange..... | 10 | 75 |
| Long Red Altringham..... | 10 | 75 |
| Large White Belgian..... | 10 | 75 |

CAULIFLOWER.

| | | |
|-----------------------------|--|---------|
| Extra Early Paris..... | | 35 5 00 |
| Lenormand's Short Stem..... | | 50 7 00 |

CELERY.

| | | |
|------------------------------|--|---------|
| Giant White Solid..... | | 15 1 50 |
| Boston Market..... | | 15 1 50 |
| Dwarf Golden Heart..... | | 15 1 50 |
| Half Dwarf Solid | | 15 1 50 |
| Dwarf White Solid..... | | 15 1 50 |
| Flavoring Celery | | 10 40 |
| Matchless Red Solid..... | | 15 1 50 |
| Celeriac, Turnip Rooted..... | | 15 1 50 |
| Self Blanching..... | | 20 4 00 |
| White Plume..... | | 20 4 00 |

COLLARDS.

| | | |
|-----------------|--|-------|
| CORN SALAD..... | | 10 75 |
|-----------------|--|-------|

CORN.

| | QT. | BU. |
|---------------------------------|-----|---------|
| Cory | | 15 2 00 |
| Perkins' Extra Early..... | | 15 2 00 |
| Extra Early Adams..... | | 15 2 00 |
| Early Marblehead Sugar..... | | 15 2 00 |
| Early Shaker Sugar, | | 15 2 00 |
| Early Red Naragansett..... | | 15 2 00 |
| Early Large Eight Rowed..... | | 15 2 00 |
| Triumph | | 15 2 00 |
| Amber Cream Sugar..... | | 15 2 00 |
| Crosby's Early | | 15 2 00 |
| La. ge Mammoth Sugar..... | | 15 2 00 |
| Improved Stowell Evergreen..... | | 15 2 00 |
| Longfellow..... | | 15 2 00 |

| | | | |
|---|------------|---------------------------------|----------|
| CORN. | QT. BUS. | MELON. | OZ. LB. |
| Egyptian..... | \$ 15 2 00 | Mountain Sweet..... | 10 50 |
| Early White Flint..... | 15 1 50 | Black Spanish..... | 10 50 |
| Eight Rowed Yellow, (<i>Canada</i>).. | 10 1 50 | Cuban Queen..... | 10 75 |
| Mammoth Chester Co..... | 10 1 50 | Gipsy, or Rattlesnake..... | 10 50 |
| Mammoth Dent..... | 10 1 50 | Dixie..... | 10 50 |
| Golden Beauty..... | 10 1 50 | The Boss..... | 10 50 |
| Golden Dent..... | 10 1 50 | Ice Cream..... | 10 50 |
| Blunt's Prolific..... | 10 1 50 | Mountain Sprout..... | 10 50 |
| Leaming..... | 10 1 50 | Light Icing..... | 10 50 |
| Hickory King..... | 10 1 50 | Dark Icing..... | 10 50 |
| Sweet Fedder Corn..... | 10 1 50 | Kolb's Gem..... | 10 50 |
| CRESS. | oz. LB. | Black Italian..... | 10 50 |
| Curled..... | 10 50 | Iron Clad..... | 10 50 |
| Broad Leaved..... | 10 60 | Citron, for preserving..... | 10 50 |
| CUCUMBER. | | Large Netted Nutmeg..... | 10 50 |
| Early Cluster..... | 20 1 50 | Netted Green..... | 10 50 |
| Early Frame..... | 20 1 50 | Montreal Green Nutmeg..... | 10 50 |
| Improved White Spined | 20 1 50 | Pine Apple Citron..... | 10 50 |
| Long Green Turkey.... | 20 1 50 | Jenny Lind Citron..... | 10 50 |
| Jersey Pickle..... | 20 1 50 | Little Gem Citron..... | 10 50 |
| Short Green Prolific | 20 1 50 | Hackensack..... | 10 50 |
| Boston Market..... | 20 1 50 | Golden Jenny..... | 10 50 |
| Gherkin..... | 20 2 00 | Early Rough..... | 10 50 |
| EGG PLANT. | | Bay View..... | 10 50 |
| Early Long Purple | 20 2 00 | Surprise..... | 10 50 |
| Improved New York Purple..... | 20 2 00 | MUSTARD, White English..... | 5 20 |
| Black Pekin..... | 20 2 00 | Black Italian..... | 5 20 |
| ENDIVE. | | NASTURTIUM..... | 15 1 00 |
| Green Curled..... | 15 1 50 | OKRA, or GOMBO, Dwarf and Tall | 10 50 |
| Broad Leaved Batavian..... | 15 1 50 | ONION, Extra Early Pearl..... | 20 1 00 |
| GRASS SEED. | | Extra Early Red..... | 20 1 00 |
| Red Clover Seed..... | | Large Red Wethersfield..... | 20 1 00 |
| Mammoth Red Clover Seed..... | | Large Yellow Strasburg..... | 20 1 00 |
| White Clover Seed..... | | Yellow Danvers..... | 20 1 00 |
| Alsike Clover Seed..... | | Silver Skin..... | 20 1 50 |
| Crimson Clover Seed..... | | Italian Queen..... | 20 1 50 |
| Orchard Grass..... | | ONYON SETS. | |
| Herds Grass | | Yellow Strasburg..... | |
| Red Top..... | | Yellow Danvers..... | |
| Green Grass..... | | Silver Skin..... | |
| Kentucky Blue Grass..... | | Early Red..... | |
| Perennial Rye Grass..... | | OATS, &c. | |
| Lucerne..... | | Surprise..... | |
| Alfalfa..... | | White and Black Norway..... | |
| Mixed Lawn Grass, &c., No. 1.... | 15 2 50 | Welcome..... | |
| KALE. | oz. LB. | White Belgian..... | |
| Green Curled..... | 10 50 | Imported Scotch..... | |
| Tall Curled Scotch..... | 10 50 | Excelsior..... | |
| Dwarf German Greens..... | 10 50 | White Probsteir..... | |
| Siberian..... | 10 50 | Barley..... | |
| LEEK. | | Seed Wheats, &c., &c. | |
| Large London Flag..... | 15 1 00 | PARSLEY. | oz. LB. |
| Musselburgh..... | 15 1 25 | Plain..... | 10 75 |
| LETTUCE. | | Double Curled..... | 10 75 |
| Early Curled Silesian..... | 15 1 25 | Moss Curled..... | 10 90 |
| Simpson's Early Curled | 15 1 25 | PARSNIP. | |
| Large Curled India..... | 15 1 25 | Sugar, or Hollow Crowned..... | 10 50 |
| Large Drumhead..... | 15 1 25 | Long White Dutch | 10 50 |
| White Dutch Butterhead..... | 15 1 25 | PEAS. | QT. BUS. |
| Royal Cabbage..... | 15 1 25 | Mingle's Extra Early..... | 15 4 50 |
| Brown Dutch Butterhead..... | 15 1 25 | Improved Premier, Extra Early.. | 15 4 50 |

According to Market.

Prices Variable.

| | |
|---------------------------------|----------|
| According to Market. | oz. LB. |
| Plain..... | 10 75 |
| Double Curled..... | 10 75 |
| Moss Curled..... | 10 90 |
| PARSNIP. | |
| Sugar, or Hollow Crowned..... | 10 50 |
| Long White Dutch | 10 50 |
| PEAS. | QT. BUS. |
| Mingle's Extra Early..... | 15 4 50 |
| Improved Premier, Extra Early.. | 15 4 50 |
| Philadelphia Extra Early..... | 15 4 00 |
| Horsfords Market Garden..... | 20 5 00 |
| Pride of the Market..... | 30 5 00 |
| Alaska..... | 15 5 50 |
| Long Island Mammoth..... | 20 4 50 |

PEAS.

| | QT. | BUS. |
|------------------------------------|-------|------|
| Tom Thumb..... | \$ 20 | 4 50 |
| Improved Little Gem..... | 20 | 4 00 |
| McLean's Premium Gem..... | 20 | 4 00 |
| American Wonder..... | 25 | 7 00 |
| Kentish Invicta..... | 25 | 5 00 |
| McLean's Blue Peter..... | 20 | 4 00 |
| Advancer..... | 20 | 4 00 |
| Fill Basket..... | 20 | 4 00 |
| Early Frame..... | 15 | 3 50 |
| Stratagem..... | 20 | 4 00 |
| Telephone (new)..... | 20 | 4 00 |
| Laxton's Marvel..... | 20 | 4 50 |
| Yorkshire Hero..... | 15 | 4 00 |
| Eugenie..... | 20 | 5 00 |
| Dwarf Champion..... | 15 | 4 00 |
| Champion of England..... | 15 | 4 00 |
| First and Best..... | 15 | 5 00 |
| Large Blue Imperial..... | 15 | 4 00 |
| Large White Marrowfat (dwarf)..... | 15 | 2 50 |
| Large Black Eyed Marrowfat..... | 15 | 2 50 |
| Canada Field..... | 10 | 1 50 |

PEPPER.

| | OZ. | LB. |
|-----------------------|-----|------|
| Large Sweet Bell..... | 15 | 1 50 |
| Tomato or Cheese..... | 15 | 1 50 |
| Long Red Cayenne..... | 15 | 1 50 |
| Sweet Mountain..... | 15 | 1 50 |

POTATO.

| | According to Market. | |
|-----------------------|----------------------|--|
| Early Vermont..... | | |
| Early Rose..... | | |
| Early Sunrise..... | | |
| Burbank Seedling..... | | |
| Dakota Red..... | | |
| White Peach Blow..... | | |
| Beauty of Hebron..... | | |
| Magnum Bonum..... | | |
| Snowflake..... | | |
| White Star..... | | |
| Mammoth Pearl..... | | |
| White Elephant..... | | |

PUMPKIN.

| | 10 | 50 |
|-------------------|----|----|
| Sweet Potato..... | 10 | 50 |
| Cashaw..... | 10 | 50 |
| Cheese..... | 10 | 50 |
| Common Field..... | 10 | 25 |

RADISH.

| | 10 | 75 |
|------------------------------------|----|----|
| Long Scarlet Short Top..... | 10 | 75 |
| Early Long Scarlet (improved)..... | 10 | 75 |
| Early Scarlet Turnip..... | 10 | 75 |
| White Tipped Scarlet..... | 10 | 75 |
| Early Deep Scarlet Turnip..... | 10 | 75 |
| Early Red Turnip..... | 10 | 75 |
| Early White Turnip..... | 10 | 75 |
| Early Scarlet, Olive Shaped..... | 10 | 75 |
| Wood's Early Frame..... | 10 | 75 |
| Early Yellow Summer Turnip..... | 10 | 75 |
| Golden Globe..... | 10 | 75 |
| Scarlet China Winter..... | 10 | 75 |
| White China Winter..... | 10 | 75 |
| Long Black Spanish Winter..... | 10 | 75 |
| Large White Spanish Winter..... | 10 | 75 |
| French Breakfast..... | 10 | 75 |
| White Strasburg..... | 10 | 75 |
| Red Strasburg..... | 10 | 75 |

RAPE

| | QT. | BUS. |
|------------------------|-----|------|
| Winter and Summer..... | 10 | 2 40 |

| | OZ. | LB. |
|--|-------|---------|
| SALSIFY..... | \$ 10 | 1 00 |
| SPINACH. | | |
| Round Leaved Savoy..... | 10 | 40 |
| Long Standing..... | 10 | 40 |
| Large Leaved Flanders..... | 10 | 40 |
| Prickly Seeded..... | 10 | 40 |
| Viroflay..... | 10 | 40 |
| SQUASH. | | |
| Early White Bush..... | 10 | 75 |
| Long Green..... | 10 | 60 |
| Golden Summer Crook-neck..... | 10 | 60 |
| American Turban..... | 10 | 60 |
| Early Golden Bush..... | 10 | 60 |
| Winter Crook-neck..... | 10 | 60 |
| Boston Marrow..... | 10 | 80 |
| Hubbard..... | 10 | 1 00 |
| Cocoanut Squash..... | 10 | 60 |
| TOMATO. | | |
| Extra Early Cluster..... | 15 | 1 50 |
| Extra Early Richmond..... | 15 | 1 50 |
| Hathaway's Excelsior..... | 15 | 1 50 |
| Acme..... | 15 | 1 50 |
| Paragon..... | 15 | 1 50 |
| Livingston's Perfection..... | 15 | 1 50 |
| Livingston's Favorite..... | 15 | 1 50 |
| Tilden..... | 15 | 1 50 |
| Trophy, Improved..... | 15 | 1 50 |
| Large Red..... | 15 | 1 50 |
| Cook's Favorite..... | 15 | 1 50 |
| Fejee Improved..... | 20 | 2 00 |
| Pear Shaped, (Yellow and Red)..... | 20 | 2 00 |
| Livingston's Beauty, (new) persons only..... | 15 | 1 25 |
| TURNIP. | | |
| Early Purple Top Munich..... | 10 | 60 |
| Early Flat Dutch, (<i>Strap Leaved</i>)..... | 10 | 60 |
| Early Purple Top, (<i>Strap Leaved</i>)..... | 10 | 60 |
| Large Early Red Top Globe (<i>New</i>)..... | 10 | 60 |
| Early White Egg..... | 10 | 60 |
| Pomeranian White Globe, (<i>Strap Leaved</i>)..... | 10 | 60 |
| White Norfolk..... | 10 | 60 |
| Cow Horn..... | 10 | 60 |
| Amber Globe, (<i>Strap Leaved</i>).... | 10 | 60 |
| Yellow Aberdeen..... | 10 | 60 |
| Robertson's Golden Ball (<i>Orange Jelly</i>)..... | 10 | 70 |
| Purple Top Yellow Swede, (<i>Ruta Baga</i>)..... | 10 | 75 |
| White Fleshed Purple Top Ruta Baga..... | 10 | 75 |
| HERBS. | | |
| Anise..... | | 15 |
| Caraway..... | | 15 |
| Fennel..... | | 15 |
| Lavender..... | | 15 |
| Pot Marigold..... | | 50 |
| Sweet Marjoram..... | | 20 1 75 |
| Rosemary..... | | 20 |
| Sage..... | | 20 2 00 |
| Sweet Basil..... | | 15 1 50 |
| Summer Savory..... | | 15 1 50 |
| Winter Savory..... | | 25 |
| Thyme..... | | 25 3 00 |



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